THE

TIMES AND REGISTER.

A Weekly Journal of Medicine and Surgery.

Published under the auspices of the American Medical Press Association.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

Vol. XXIII. No. 21. Whole No. 689. } NEW YORK AND PHILADELPHIA, NOVEMBER 21, 1891. { Yearly Subscription $3.00, in advance. Single Numbers 10 cents.

Published by the Medical Press Company, Limited, 1725 Arch Street, Philadelphia, Pa.
In Paris: E. Besinee, 19 Rue Vaneau. Entered at the Philadelphia Post Office as second-class mail matter.

Notes and Items.

THE REASON.

Store is vacant,
Sign "To Let,"
Former tenant
Had to get.
He, in sorrow,
Sits and sighs,
'Cause he didn't
Advertise.

—*N. Y. Journal.*

ANOTHER REASON.

Store is vacant, sign "To Let,"
Former tenant had to get.
He failed, tho' active, enterprising,
By injudicious advertising.
Find him in the corner store,
Just a block below the old one;
See the crowds block up the door,
In the rush to fill the new one.
What's the reason of this change?
Successful, active, enterprising;
Nothing new, not even strange,
Only careful advertising. —D. D. S.

DOCTOR: "You noticed a marked increase in your appetite?"
Patient: "Yes."
Doctor: "Sleep longer and more heavily than usual?"
Patient: "Yes."
Doctor: "Feel very fatigued after much exercise?"
Patient: "Yes."
Doctor: "H'm! Very grave case. But the researches of science, sir, enable us to cope with your malady, and I think I can pull you through."

PRACTICE.—No real estate. In New Jersey town, one hour from New York. $2,800 collected in 1890. Percentage will be taken. Address 34, TIMES AND REGISTER.

NEW YORK

POLYCLINIC

AND

HOSPITAL.

A Clinical School for Graduates in Medicine and Surgery.

DIRECTORS.

THOMAS ADDIS EMMET, M.D., LL.D
PROF. T. GAILLARD THOMAS, M.D.
PROF. ALFRED L. LOOMIS, M.D., LL.D.
LEONARD WEBER, M.D.
HON. EVERETT P. WHEELER.

H. DORMITZER, ESQ
JULIUS HAMMERSLAUGH, ESQ.
HON. B. F. TRACY,
CHARLES COUDERT, ESQ.
REV. THOMAS ARMITAGE, D.D.

W. A. BUTLER, ESQ.
WILLIAM T. WARDWELL, ESQ.
GEORGE B. GRINNELL, ESQ.
HON. HORACE RUSSELL.
SAMUEL RIKER, ESQ.

FACULTY.

JAMES R. LEAMING, M.D., Emeritus-Professor of Diseases of the Chest and Physical Diagnosis; Special Consulting Physician in Chest Diseases to St. Luke's Hospital.

EDWARD B. BRONSON, M.D., Professor of Dermatology; Visiting Dermatologist to the Charity Hospital; Consulting Dermatologist to Bellevue Hospital (Out-door-Department).

A. G. GERSTER, M.D., Professor of Surgery; Visiting Surgeon to the German and Mt. Sinai Hospitals.

V. P. GIBNEY, M.D., Professor of Orthopædic Surgery; Orthopædic Surgeon to the Nursery and Child's Hospital; Surgeon-in-Chief to the Hospital for Ruptured and Crippled.

LANDON CARTER GRAY, M.D., Professor of Diseases of the Mind and Nervous System; Attending Physician to Hospital for Nervous and Mental Diseases, and to St. Mary's Hospital.

EMIL GRUENING, M.D., Professor of Ophthalmology; Visiting Ophthalmologist to Mt. Sinai Hospital, and to the German Hospital.

PAUL F. MUNDÉ, M.D., Professor of Gynecology; Gynecologist to Mt. Sinai Hospital; Consulting Gynecologist to St. Elizabeth's Hospital.

A. R. ROBINSON, M.B., L.R.C.P. and S. (Edin.), Professor of Dermatology; Professor of Normal and Pathological Histology in the Women's Medical College.

DAVID WEBSTER, M.D., Professor of Ophthalmology; Surgeon to the Manhattan Eye and Ear Hospital.

JOHN A. WYETH, M.D., Professor of Surgery; Visiting Surgeon to Mt. Sinai Hospital; Consulting Surgeon to St Elizabeth's Hospital; Secretary of the Faculty.

W. GILL WYLIE, M.D., Professor of Gynecology; Gynecologist to Bellevue Hospital; President of the Faculty.

R. C. M. PAGE, M.D., Professor of General Medicine and Diseases of the Chest. Physician to St. Elizabeth's Hospital; Attending Physician to the Northwestern Dispensary. Department of Chest Diseases.

D. BRYSON DELAVAN, M.D., Professor of Laryngology and Rhinology; Laryngologist to the Demilt Dispensary.

JOSEPH WILLIAM GLEITSMANN, M.D., Professor of Laryngology and Rhinology; Laryngologist and Otologist to the German Dispensary.

OREN D. POMEROY, M.D., Professor of Otology; Surgeon Manhatten Eye and Ear Hospital; Ophthalmic Surgeon New York Infants' Asylum, and Consulting Surgeon to the Paterson Eye and Ear Infirmary

HENRY N. HEINEMAN, M.D., Professor of General Medicine and Diseases of the Chest; Attending Physician to Mt. Sinai Hospital.

THOMAS R. POOLEY, M.D., Professor of Ophthalmology; Surgeon-in-Chief of the New Amsterdam Eye and Ear Hospital; Ophthalmic Surgeon to the Sheltering Arms; Consulting Ophthalmologist to St. Bartholomew's Hospital.

B. SACHS, M.D., Professor of Neurology; Consulting Neurologist to the Montefiore Home for Chronic Invalids.

L. EMMETT HOLT, M.D., Professor of Diseases of Children; Visiting Physician to the New York Infant Asylum; Consulting Physician to the Hospital for Ruptured and Crippled.

AUGUST SEIBERT, M.D., Professor of Diseases of Children; Physician to the Children's Department of the German Dispensary.

H. MARION SIMS, M.D., Professor of Gynecology; Gynecologist to St. Elizabeth's Hospital and New York Infant Asylum.

WILLIAM F. FLUHRER, M.D., Professor of Genito-Urinary Surgery; Surgeon to Mt. Sinai and Bellevue Hospitals.

HENRY C. COE, M.D., M.R.C.S. (Eng.), Professor of Gynecology; Attending Surgeon to New York Cancer Hospital; Assistant Surgeon to Woman's Hospital; Obstetric Surgeon to Maternity Hospital; Obstetrician to New York Infant Asylum; Gynecologis to Presbyterian Hospital (Out-door Department).

EDWARD A. AYERS, M.D., Professor of Obstetrics; Attending Physician to the New York Lying-in Asylum, (Out-door Department).

ROBERT H. M. DAWBARN, M.D., Professor of Operative Surgery and Surgical Anatomy.

REGULAR SESSION NOW IN PROGRESS.

For further information, and for catalogue, address **JOHN A. WYETH, M.D., Secretary of the Faculty,**

Or, WILLIS O. DAVIS, Clerk, 214, 216 and 218 East 34th St., New York City.

The Times and Register.

Vol. XXIII, No. 21. NEW YORK AND PHILADELPHIA, NOVEMBER 21, 1891. Whole No. 689.

PAGE

ORIGINAL ARTICLES.

THE TREATMENT OF SOME FORMS OF SEXUAL DEBILITY BY ELECTRICITY. By M. J. Grier, M.D., Philadelphia - - - - - - 423
GALVANISM IN THE TREATMENT OF CORNEAL OPACITIES. By L. A. W. Alleman, A.M., M.D. - - - - - - - - - - - - 427
MEDICAMENTAL ELECTROLYSIS. By Dr. Foveau de Courmelles, Paris - - - - - 429
ELECTRICITY IN ANCHYLOSIS. By Dr. von Reitz, New York - - - - - - - - - 431
SUMMARY OF MY PERSONAL EXPERIENCE WITH ELECTROLYSIS IN THE TREATMENT OF FIBROID TUMORS. By J. H. Kellogg, M.D., Battle Creek, Michigan - - - - - 432
THE INFLUENCE OF GRAVEYARDS ON PUBLIC HEALTH, OR THE SANITARY DISPOSAL OF THE DEAD. By J. W. Carhart, M.D., C.M., D.D., Lampasas, Texas - - - - - 434
DISPENSARIES OF PHILADELPHIA - - - - 437

THE POLYCLINIC.

MEDICO-CHIRURGICAL HOSPITAL:
Difficulty of Distinguishing Between a Functional and Organic Heart Murmur. *Woodbury* - - - - - - - - - 439
The Amount of Disturbance of Health in Trichiniasis. *Woodbury* - - - - - - 439

PAGE

Fœtal Teeth. *Hollopeter* - - - - - - - 439
Elegant Toilet or Dusting Powder. *Hollopeter* - - - - - - - - - - - - - 439
Convulsions in Dentition. *Hollopeter* - - 439

EDITORIAL.

BICHLORIDE OF GOLD TREATMENT - - - 440

ANNOTATIONS.

Diphtheria - - - - - - - - - - - - - 441
Obituary—Drs. S. R. Knight and J. D. Rihl, 441

LETTER TO THE EDITOR.

Vaginal Douche Apparatus. *Parker* - - - 441

BOOK NOTICES.

All Around the Year, 1892. *Sunter* - - - - 441
Essentials of Nervous Diseases and Insanity. *Shaw* - - - - - - - - - - - 441
A Manual of Hypodermatic Medication. *Bartholow* - - - - - - - - - - - - 441

THE MEDICAL DIGEST.

Methylene Blue in Malaria. *Guttman and Ehrlich* - - - - - - - - - - - - - 439
Aristol in Scrofulous Abscesses - - - - - 442
Jaundice and Hematuria in a Child Three Days Old. *Burton-Fanning* - - - - - - 442
For Vomiting Pregnancy - - - - - - - 442

PAGE

For Gonorrhœa - - - - - - - - - - - 442
For Furuncles. *Wile* - - - - - - - - - 442
For Diphtheria. *Loeffler* - - - - - - - 442
Rheumatism. *Johnson* - - - - - - - - 442
Bromide of Ethyl. *Haeberlin* - - - - - 442
Survival After the Death of the Leucocytes. *Maurel* - - - - - - - - - - - - 442
For the Removal of Glass Beads from the Ear. *Provincial Med. Jour.* - - - - - - 442
Saccharomyces, and Their Relation to the Typhoid Bacillus. *de Bavay* - - - - - 442
Urticaria. *N. Y. Med. Times* - - - - - - 442
Antiseptics in Surgery. *Bergner* - - - - 442
Antikamnia. *Carver* - - - - - - - - - 443
Treatment of Malarial Hematuria. *Meek* - 443
Vaginal Examination During Labor. *Veit*, 443
GERMAN NOTES. *Marcus* - - - - - - - - 443
Scabies. *Kaposi* - - - - - - - - - - 443
New Medicinal Soaps. *Œrtzl. Central Anzeiger f. Œsterreich* - - - - - - - - 443
Diuretin. - - - - - - - - - - - - - 443
Erysipelas and Empyema. *Spaeth* - - - 444
Abortive Treatment of Small pox. *Paola* 444
Varicella and Variola. *Hochsinger* - - - 444
Cystitis. *Internat. Klin. Rundsch.* - - - 444
Laryngeal Ulcers. *Ibid.* - - - - - - - 444
Constipation. *Ibid.* - - - - - - - - - 444
Migraine. *Ibid.* - - - - - - - - - - 444
Rhino-pharyngitis. *Ibid.* - - - - - - - 444
A New Anæsthetic. *Mering* - - - - - 444
MEDICAL NEWS AND MISCELLANY. 444
NOTES AND ITEMS - - - - - - - iv, x

Original Articles.

THE TREATMENT OF SOME FORMS OF SEXUAL DEBILITY BY ELECTRICITY.[1]

BY M. J. GRIER, M.D.,
PHILADELPHIA.

OF the incidental inquiries presented to the physician—particularly if he is engaged in special work—many of them will refer to the derangements of the sexual functions. Few patients, however, present themselves for consultation and treatment of these ailments, although ultimately it will appear to have been the real intention. They usually seek relief from a neuralgia, pain in the back, muscular debility, or some other cause leading easily and naturally from the ostensible to the real object of the visit. This is generally the case with the younger subjects, who have become conscious of an appreciable physical failure, or who from the presence of some slight subjective symptoms are apprehensive that such failure will certainly occur. Another class will seek relief from conditions fully developed, and at once are freely communicative as to their condition and the causes. Both classes have generally acquired morbid ideas, as well as erroneous opinions, concerning their condition, and add this much to the difficulty of their management. Some of them have already been under treatment; the family physician has been consulted, and iron, strychnine and electricity have been continuously administered, but without the desired result.

My purpose is to consider some of the conditions most usually presented, and what may be done for them by electricity.

[1] Read at the meeting of the American Electro-Therapeutical Association.

The larger number of such cases present a state of local and general debility resulting from excessive and long-continued stimulation of special nerve endings, with consequent exhaustion of the spinal and cerebral centers controlling the parts involved.

The neurasthenic condition of the patient will probably and justly demand our earliest attention. Whether it be the cause or effect of the sexual debility the progress and results of the local treatments will be much more decided as this state disappears. In one class—and, I think, a large one—it will be found to be a lowered functional activity of the entire nervous system, depending on preceding mental depression, caused by the gradually-developing consciousness of the diminution of the virile power and the fear of its complete abolition. In another class, of more mature years, we will find varying degrees of inability, ranging from actual impairment of function to complete loss of power.

In addition to the value of properly-directed medication, aided materially by the change in the morale of the patient, as we succeed in inspiring him with a hope of relief by demonstrating to him its possibility through the results of treatment, we shall find electricity a potent factor in his restoration. Without attempting in this phase of neurasthenia to differentiate the form as to its special character, beyond the recognition of the sexual disturbances, we may proceed to its relief at once by the employment of galvanism in the treatment of the head and spine. Cerebral galvanization, with its catalytic and alterative effects, will, perhaps, best meet the indications. The method may be varied to suit each particular case; but, as a rule, the effort will be to bring the cerebral and spinal centers under its special influence by either increasing or diminishing their irritability. In the application to the head the vertex is well moistened and a two-inch electrode placed on it and

firmly maintained. The vertex is selected because the current is well borne at that point; there is less vertigo or other apparent cerebral disturbance. To diminish cerebral irritability, I use the positive pole on the head, as I am convinced, from observation, the effect is more sedative. The negative electrode is a slightly convex button of two inches diameter. For plate electrodes, I prefer pure tin plates, about No. 28 gauge, as they are soft and are easily moulded to any curved surface, and are always bright and fiesh looking. These are covered with ordinary white, undressed muslin, such as cotton shirting. I have used such a covering for over twenty years, and prefer it, because it is thrown in the waste basket after one application; hence the electrodes are always freshly covered, and the care and risk attending the use of sponges and chamois skin are avoided. Perhaps equally important is the greater uniformity in the relation of the electrode to the skin as to distance; it never varies one-hundredth of an inch, keeping the current density quite regular; while with the sponges the ever-varying distance and pressure may be quite enough to convert an intended stabile to a labile application. Having adjusted the positive plate to the vertex, the negative is placed subaurally on either side; beginning with a minimum amount of current—say about two m. amperes—and a uniform pressure, the negative electrode is slowly moved down over the region of the cervical sympathetic nerves, until we reach the first dorsal vertebra, when we may gradually raise the current strength to five m. amperes, and pass slowly down each side of the upper spine. This current strength should be maintained, as the increased resistance of more tissue is brought into the circuit. As a rule, we need not pass below the dorsal vertebra, depending on the catelectrotonic state induced below that point, and reserving the special lumbar and sacral centers for subsequent treatment.

Carefully avoiding any abrupt change of application and pressure, the positive may now be placed over the inferior cervical ganglion on either side, and the negative traced over the course of each dorsal nerve, thus influencing gently the sympathetic ganglia. What this influence is, or how it acts beyond the so-called catalytic change, we do not know. The effect of an interrupted galvanic current on the nerves and muscles has been fully established as laid down by the laws of Pflenger, giving us normal actions of contraction on opening and closing the circuit. It is probable in a labile application of the current, as above, the movement of the cathode over the tissues is equivalent to an opening and closing of the circuit, as each cell is successively subjected to its presence, and thus there is induced a momentary contraction or tonic state of the vascular muscles, resulting in the improvement of circulation and nutrition. Landois quotes Grutzner as saying that, "The constant current has no effect in vaso-motor and secretory fibers;" per contra, Erb says: "Of special importance is the demonstration of the vaso-motor effects of the electrical currents. The recent experimental researches of Löwenfeld, with regard to dilatation and contraction of the cerebral vessels upon transverse and antero-posterior passage of the galvanic current through the head, are valuable in this respect. Perhaps, also, the electrical actions upon trophic nerve-tissues may produce changes in the dissimulation of other tissues and organs of the body, organic metamorphoses, modifications of nutrition, which constitute a part of the 'catalytic' effects."

The general result of the treatment, after a number of applications, is apparent in the disappearance of the sallowness of nervous depression, and a better cutaneous circulation, as shown by the improvement in the complexion; a more refreshing sleep, and less disposition to lag on rising; there is also an improvement in the digestive functions, and a general feeling of buoyancy. This gives us a much better foundation on which to build our efforts in the treatment of the local disturbances.

The loss of the erectile power is the most prominent of the local symptoms, and is that which naturally impresses the patient most forcibly, and impels him more than any other to seek professional aid; to him it is but a single fact; to his physician it is the evidence of the derangement of a complicated system of parts and functions, both local and general.

A brief statement of the mechanism of erection will aid us in the analysis of the symptoms and causes of failure, and, to a large extent, point out the indications for treatment. Erection depends upon the turgescence of the spongy bodies of the penis, and will be more or less complete according to the amount of blood passing into and retained there by the normal action of the mechanism, which retards its outflow. This will result from physical and psychical reflexes acting through the appropriate muscles. The trabeculæ of the cavernous bodies consist mainly of elastic fibers and erectile tissue, which are actuated to dilatation by the nervi erigentes under the domination of cerebral or reflex impulses; the consequent dilatation of these spaces permits an augmented supply of blood causing an enlargement of the organ, with an elevated temperature. Certain muscles during this period are brought into action, and by their compression retard the outward flow of blood, thus increasing both the volume and the density of the organ. In co-ordination of these parts the failure of one or more gives rise to some of the forms of impotence; these may be broadly classed under two heads, the nervous and the physical. In the former we may have a physically perfect apparatus, capable of functional activity at times, but failing at others, which will depend on disturbed or perverted innervation, originating in the cerebral cortex, or in the center of the spine and medulla. Fright, certain emotional disturbances and personal feeling may act in this way; but these we need not dwell upon, as they may occur in the best of health. We will study the morbid conditions, which will be found to arise mainly from the irritation or sedation of centers caused by overstimulation, and will consider more in detail the physiology of the mechanism of erection, as far as it may aid us in explanation of the various forms of debility. The active dilatation of the cavities of the corporæ is effected through the influence of the nervi erigentes, described by Eckhard. They are formed by small branches from the second and third sacral nerves, and contain vaso-dilator fibers, which actively expand the deep arteries and enlarge the cavities of the erectile tissue. A center for these nerves has not been definitely proved to exist in the medulla; it is only surmised, but its existence seems to be fully justified; its action is opposite to that of the vaso-motor centers. In speaking of the probable existence of the vaso-dilator nerves Landois says, "If the nervi erigentes be divided there is no effect on the blood-vessels of the penis; but if their peripheral ends be stimulated with electricity the sinuses of the corporæ cavernosæ dilate, become filled with blood, and erection takes place."

These reflexes may be excited by physical excitation of the sensory cutaneous filaments; by volitional contraction of the genital muscles, and by the psychical activities of the cerebrum. If the activity of these centers be thus induced, the first result is that of excessive dilatation of the arteries, and engorgement of the cavities of the corporæ, and the first stage of erection is produced; to maintain it the out-flow of blood must be retarded by the constricting action of the appropriate muscles. Failure of these centers to respond means absence of dilatation and its attendant engorgement, and the resulting inactivity of the retarding muscles, producing a not infrequent form of nervous impotence clearly referable, directly, to the functional inactivity of the nervi erigentes.

These cases I have found associated long-continued continence, and in men of excessive mental application in whom the outgo of cerebral activity has been expended in other directions; also, in those who have become sexually morbid, having lost through exhaustion the normal psychical reflexes; usually they retain more or less of the physical reflexes and respond to stimulation of the local sensory nerves, thus proving that the spinal paths of the afferent nerves have not been impaired, or at least not to a very great extent.

In such cases the indications are to stimulate the nervi erigentes, and the upper centers acting in conjunction with them. An ascending current of about 5 milliamperes of galvanism may be passed from the perineum, from over the third and fourth sacral nerves, where the vaso-dilator branches arise, and from the genito-spinal center of Budge, at the fourth lumbar vertebra, successively; the negative electrode should be carefully applied to the back and sides of the neck and to the vertex, endeavoring to increase the excitability of the cortex in those in whom it has depressed, and to quicken the responses of the lower spinal centers to their impress.

Eckhard observed erection to take place after stimulation of the higher regions of the spinal cord, as well as of the pons and crura cerebri.

We have another important set of nerves to consider in the vaso-motors. Their function is to maintain a normal tone or contraction of the blood-vessels and antagonizes the action of the vaso-dilators.

Their general center lies in the medulla oblongata; stimulation of this center contracts the arteries and its paralysis causes relaxation and dilatation of them. In the afferent nerves there are fibers whose stimulation affects this center; some exciting and others depressing it. The primary stimulation of these nerves is attended by contraction of vessels, and over-stimulation by dilatation of them; there are also local centers in the spinal cord, each controlling certain areas. Under ordinary conditions the vaso motor nerves are in a state of moderate tonic excitement. If from irritation of these centers we have the vaso-motors over-excited, and a controlling influence exercised on the vessels supplying the erectile tissues, through their dominant control over the vaso-dilators, the engorgement of the sinuses of the cavernous bodies will be prevented and erection will be impossible. This happens in the earlier changes following excessive sexual stimulation, and is most probably the result of the irritation which precedes exhaustion of the centers. The excessive tone is shown in the diminished blood supply to, and the lowered temperature of, the pale and shrunken organ. In healthy but nervously excitable individuals under certain circumstances, emotional influences such as fright or fear may act in a similar manner, by producing a sudden temporary excitement of the vaso-motor nerves, to a degree sufficient to overcome the previously active vaso-motor dilators, and by thus cutting off from the cavernous sinuses and the retarding muscles the necessary blood supply, produce a sudden collapse with entire disappearance of the erection. In chronic hyperaction of these nerves, the lessened blood supply to the secretory organs is shown by the diminished amount of their secretions, and the consequent loss of this source of stimulation. In such cases, galvanism as described in the application to the vertex and upper spine for neurasthenia will diminish the upper central irritability; and good results will come from a stabile application to the lumbar region with a current of 5 or 6 milliamperes through a positive 4x4 inch plate, one of equal size being placed at some indifferent point on the lower portion of the thigh. The extra current acts remarkably in many cases, and probably in the same manner as the continuous, temporarily lowering the activity of the constricting nerves.

I find the best results are produced by placing a moistened electrode, about one and a quarter inches square, against the perineum; this should be the positive pole; the negative may be a plate of three inches, held continuously against the sacro-lumbar junction, the cords should be connected with the terminals of the primary coil. Commence with the minimum strength and gradually increase it to as much as the patient can comfortably bear; the application will require from ten to fifteen minutes duration; the result varies with the patient's general and local condition; in some cases, usually those who are less nervous and irritable, the effects are noticed at the time of the application, others may not notice a change for half an hour or longer after the treatment. In those in whom the sensory nerves are not very much impaired the first impression may be a sense of tingling along the dorsal nerve of the penis, or it may be distributed over the inner surfaces of the thighs, through branches of the internal cutaneous nerves, often reaching to the knees. In a little time a warm glowing sensation will be felt mostly in the sacro-lumbar and gluteal regions; this being obtained, the application should cease; this effect may last from a few minutes to several hours, and will be alluded to by the patient at a subsequent visit as causing a feeling of comfort and pleasure. The ultimate result is a restoration of the normal circulation, and an improvement in the nutrition of the parts, with increased local muscular power. In speaking of this particular application, I might add that occasionally a patient has reached the office at a moment when the cold stage of an intermittent fever was beginning. Without making any allusion to the expected effect, I have made this application, and have often succeeded in breaking up the paroxysm or materially lessening the usual duration of the chill; on several occasions the fever did not follow, although, in the subsequent return, two days later, the usual sequence was observed. It did not require any more time or energy of current action in these cases, judging by the disappearance of the chill and the restoration of color to the nails and lips, than is needed to get the pelvic effects in the other cases.

The opposite condition of vaso motor relaxation is frequently met with; it is an exhaustion following the state of irritability just described. It is a loss of that moderate tonic excitement, which is the normal state of these nerves, on which a healthy circulation and nutrition depend. When affecting the centers controlling the genital organs the result will be a

passive engorgement, with a flaccid elongation; the temperature may be normal or lowered, depending on the sluggishness of circulation; the muscles are undernourished, and voluntary control of them is lessened; in many cases the secretion of the coronal glands is unpleasantly augmented. In the erectile effort the vaso dilators may be sufficiently active to enlarge the cavernous sinuses and increase the flow of blood thereto; but the weakened muscles fail to sufficiently retard the return of blood from them, and the result is a moderate increase of bulk, with a soft gland and an easily compressible body. The value of electricity is suggested by Claude Bernard's well-known experiment, where section of the cervical sympathetic nerve is followed by dilatation of the blood-vessels it supplies; and stimulation of the peripheral end causes the opposite condition of contracted vessels. As we cannot influence the nerves by direct contact, we will have to depend upon the application of galvanism to those parts which anatomy and experience teach us is the most available, and through which we can get reflex effects. A very efficient method will be the introduction within the urethra of an uninsulated metallic sound connected with the negative pole; the current of galvanism should not be over 2 or 3 milliamperes, and should be slowly broken, say about twice each second, for not over two minutes; the contact should last only during the instant of making, giving a short interval of excitation and a longer one of rest, thus securing the benefit of the reflexes, caused by the stimulation of this pole, without the risk of the increased exhaustion, which would constantly follow a stronger treatment. The improvement of repeated applications will be shown by the retraction of the organ to a normal size. The immediate effect of the application is due both to muscular stimulation and increased arterial contraction; but mostly to the latter, as the contraction is often to an extent beyond the capability of ordinary muscular action, the diminution being sometimes so great as to reduce the organ to half the size of healthful repose.

Two other methods may be employed to produce this stimulation. Galvanism applied to the surface of the inner side of the upper third of each thigh, with a bare negative electrode, kept slowly moving, and using a current strength only sufficient to develop a pungent irritation of the sensory nerves; to use more would be to overtax and exhaust the vasomotor nerves still further, and we would fail to get the desired reflex effects on the higher centers.

The bare negative electrode of the induction coil may also be used over the same region, and for the same purpose. The vibrations should be slow enough to give perceptibly distinct shocks.

This latter treatment is in accord with the statement made by Kronecker and Nicolaides, quoted by Landois in speaking of the stimulation of the vasomotor nerves, that the maximum contraction of the arteries, as expressed by the blood pressure, is reached when ten to twelve strong, or twenty to twenty-five moderately strong, shocks per second are applied. In O. Naumann's experiments on the circulation of the frog, he found that weak electrical stimulation of the skin caused, at first, contraction of the blood-vessels, with simultaneous excitement of the cardiac activity; strong stimuli, however, had an opposite, or depressor, effect.

The positive pole in these therapeutic applications may be placed at any indifferent part, since the effect desired is the reflex action produced by the irritation of the negative pole.

In considering the mechanism of erection, reference has been made to the necessity of a restraining power, whereby the blood injected into the sinuses may be retained there. This is accomplished by the action of certain muscles, which are also concerned in the emission of the semen and urine. They receive their motor influences from the muscular branches of the pudic nerve. The bulbo-cavernosus or accelerator urinæ muscle acts on the bulb of the corpus spongiosum, and is thus concerned in the hardening of the urethral portion; the middle fibers are supposed by Krause to assist in the erection of this corpus, by compressing the erectile tissue of the bulb; the anterior fibers are longer, and spread over the sides of the corporæ cavernosa, as they rise to be inserted into the tendinous expansion covering the dorsal vein of the penis. According to Tyrrel, the contraction of this portion assists in erection by compressing the dorsal vein, thus retarding the outflow of blood. This effect is materially aided by the action of the deep transversus perinæi muscle, which is perforated by the deep veins of the penis, and which are compressed between the terse horizontal fibers of the muscle when it is in action. The erector penis muscles also contribute efficiently to this retardation, as in contraction they compress each crus penis.

Dilatation and turgescence of the sinus of the corporæ having occurred, we can readily see how a partial or complete failure of these muscles to act will impair or prevent erection. Under certain psychical impressions their failure will aid in producing the erectile collapse we have alluded to when the vasomotor nerves dominate the vaso-dilators. In their sexual activity these muscles, while partly under volitional control, are mainly excited by reflexes; and very readily in health become equally active under the reflexes resulting from stimulation of the sensory nerves of the penis and adjacent parts. These muscles respond more or less to the faradic and galvanic currents, according to their degree of health or exhaustion, and tests thus made may assist us in the diagnosis of their condition. A suitable electrode, insulated where it comes in contact with the anal margin, may be introduced in the rectum and pressed against the anterior wall; a small, flat electrode, connected with the negative pole of the extra current, should be placed against the perineum, and the current gradually increased in strength until the muscular action is produced, which, in health, is quite strong. If the muscles fail, or respond feebly, the galvanic current may be substituted, observing the same polarity, making slow interruptions, with a feeble current, gradually increasing both the strength and rapidity of interruption. This proceeding answers very well for the direct treatment of these muscles. Decided contractions of the accelerator and compressor urethral muscles may be obtained by substituting for the perineal electrode an uninsulated metallic urethral sound, using an interrupted galvanic current. I have often seen the sound extruded by the contractions induced, and in other cases there has been a spasm, lasting two or three minutes, grasping the sound so tightly that it could only have been withdrawn by more than a prudent and safe effort.

These muscles being supplied by the muscular branches of the pudic nerve, indirect stimulation of them may be made by placing a positive plate electrode over the sacrum, the rectal electrode becoming the negative and remaining as before, using, if the muscles are very feeble, a short, constant current of not over two m. amperes, supplemented by twenty or

thirty interruptions, occupying about one minute. A weak muscle of this class requires a longer duration of current action and short intervals of rest, if the current be of not more than the above strength. Vigorous treatment only seems to exhaust the already enfeebled parts. The rectal electrode may now be changed for a small perineal plate, and stimulation of the perineum and root of the penis may be made with a bearable strength of the extra current, slowly interrupted. This will produce both muscular and reflex effects.

Conjoined with defective muscular action, there is usually a lowered sensibility of the genital, cutaneous and special sensory nerves, caused by the exhaustion following excessive stimulation. This will be found most marked about the prepuce and the glands, more particularly around the corona and the papillæ beneath the meatus; also, if the anæsthesia be profound, in the frœnum prœputialis. The cremaster reflex is sometimes diminished and may be abolished. Such cases may have a decided cerebral sexual activity with physical failure; or there may be a moderate erectile power, with loss of sexual pleasure and a retarded or incomplete orgasm. Sensibility of the surfaces may be quite decided under electric tests, and the tactile sensibility much enfeebled or lost, lessening the value of electro-diagnosis, excepting as to the condition of the muscles. As the local nutrition is usually impaired, resulting in relaxation of tissue and lowered temperature, we will meet both indications by the use of the galvanic current applied to the sensory parts most affected, by means of a small, bare electrode, placing a medium positive plate over the sacrum, to include the origin of the pudic nerve, from which is given off the dorsal nerve of the penis. This is a sensory, and hence an afferent, nerve, and, it will be noted, the direction of the current is in opposition to its normal nerve-current direction, so that while the current is passing downwards—that is, from the center to the periphery—it has, in relation to the normal nerve direction, an inverse course. My experience is, that in treating the lowered sensibility of such nerves the best results are obtained from a very mild current in this manner, and continued only long enough to produce the blush and a slight pungent sensation at the negative pole.

In the earlier changes of nerve excitability we often find an extremely sensitive condition—a hyperæsthesia, in which even contact of the ordinary clothing with the surfaces will suffice to produce erotic excitement. Preputeal and rectal irritation, as well as other local causes, may also originate it, and, in many cases, leads to direct stimulation of the genitals by touch, which, continued to excess, is a potent factor in producing abnormal excitability, and consequent exhaustion of these nerve centers. It is also a frequent cause of premature emission. Having removed or corrected the exciting local causes, galvanism will aid us in removing the central irritability. We may use the sedative action of the anode, applied over the sacrum, using a stabile current of not over five m. amperes; the negative should be placed over some indifferent point, preferably to the lower limbs. It is essential to have a very mild current, free from any variation of strength, and to maintain the sacral pole evenly at one position and for a longer time than has been advised in other applications.

Having thus treated the centers, we may diminish the excitability of the nerve terminals by enveloping the penis with a soft metallic plate, thinly lined with moist absorbent cotton, to fill up irregularities and make more uniform contact. This plate should be the anode, and the cathode may rest on the abdomen. A mild, steady current through a sensory nerve for ten or fifteen minutes, traversing it in the normal nerve current direction, will lower the excitability of the nerve. Urethral irritability is a most frequent cause of morbid action of the genital centers, and gives rise to various degrees of nerve irritation or sedation. Premature and painful emission may also be traced to congestion and irritation of the veramontanum.

Similar impaired functional activities may result from the reflexes induced by continued irritability of the urethral lining and its ducts. An anodic bare metallic sound, with a current of not more than one m. ampere, and a cathodic plate over the lumbar vertebræ, will diminish the excessive irritability of this membrane.

Many other points might be considered, but the general method of treatment and the reasons therefor are here outlined, and, I trust, may be of such service to others as I have found them.

1531 Spruce Street.

GALVANISM IN THE TREATMENT OF CORNEAL OPACITIES.[1]

By L. A. W. ALLEMAN, A.M., M.D.

THE employment of the electric current in the treatment of diseases of the eye is no new expedient; yet our knowledge of the manner in which this agent accomplishes its object,—of the indications for its employment, and of the results which may be reasonably expected, is much short of that full and accurate comprehension so much to be desired in the employment of any therapeutic agent.

Much has been written upon the subject, but unfortunately, little of this literature is available as a sure foundation upon which to build. The greater part of it is mainly suggestive. Cases are frequently reported, simply stating that "electricity was employed with apparent benefit," with absolutely no reference to the most important details of method, etc., or again a report may state that "ten cells were employed, daily, for a given time, yet no good results were noted." Now, we all know that the same ten cells may one day give us a very effective current, and the next, for some reason not always easy to discover, no current at all; and unless we have some definite statement of the amount of current the patient actually received, we are unable to tell whether the failure was due to the fact that the treatment was inefficacious or to no treatment having been given, through some defect of the apparatus employed. Yet sufficient evidence is at hand to convince us that ophthalmic surgery presents a very favorable field to this method of treatment, and to stimulate us to investigation and experiment.

I have endeavored to test thoroughly the efficiency of galvanism, in one class of cases, *i. e.*, opacities of the cornea; and I will invite your attention to a report of my investigations.

After the subsidence of the corneal inflammation which has given rise to the opacity, the eye usually remains for some time in an irritable condition; it flushes easily, and shows evidence of a high vascularity, an increase of nutritive activity in the neighborhood of the scar. Sometimes vessels are seen running on to the cloudy area; and when this is the case, the prognosis is relatively more favorable.

[1] Read before the American Electro-therapeutic Society at Philadelphia.

For some little time the reparative process may go on with much activity—especially in young subjects; the cloud diminishes in density and extent, but more or less quickly it returns to a condition of normal nutrition; the scar tissue becomes more resistent, and the clearing up proceeds more and more slowly, till it finally ceases. In this stage we can often accomplish much by treatment. Such agents as an ointment of the yellow oxide of mercury; calomel dusted into the eye; massage and the like, prolong the reparative process. Sometimes such a radical disturbance, as a corneal incision made in performing an iridectomy will favorably influence a case which has for a long time showed no improvement. But we finally arrive at a stage where the eye is perfectly quiet, and no further absorption of the opaque tissue can be induced.

It occurred to me that in this stage the galvanic current was indicated.

It was a well-known and established fact that it would act as a powerful modifier of nutrition in other parts of the body. Why could it not be made to do the same thing in the cornea?

I believe the reason it has not been more successful was that when used through the closed lids, the necessarily feeble current employed on the eye could not produce at the site of the lesion sufficient stimulation to bring about the desired effect, and to meet this indication I had an electrode[1] constructed which I could use upon the surface of the cornea. It consists of a silver bar, *a*, 12 mm. in length, insulated, except at the ends, by a hard-rubber shell; the exposed surface at the lower extremity is slightly concave, 7 mm. in diameter. The upper extremity carries a thread which screws into a metal collar at *b*, allowing the tips to be changed when necessary. The collar is attached to a copper spring, *c*, which still further protects the cornea from injury when the electrode is moved in the fingers, and at the same time, being perfectly flexible, allows the tip to be adjusted to any desirable angle, which greatly assists the convenience of application. The spring is fastened to a hard-rubber handle, *d*, 10 cm. in length and 1 cm. in diameter, through which a conducting wire carried to the binding post, *e*, at the upper extremity.

In my first experiments, it was my practice to dip the exposed silver tip of the electrode into a bath of metallic mercury, thereby attaching a globule of mercury to the electrode, which would act as a cushion upon the surface of the cornea; but I have now abandoned this expedient as unnecessary, sufficient moisture being always present and forming rather a better cushion than the mercury.

A battery of Lechanché cells, a Flemming milliampere-meter, and a rheostat complete my outfit. The rheostat is a modification of one made by Mr. Barrett, and consists of a pledget of cotton impregnated with powdered graphite, between two metal discs, which can be approximated by turning the thumb-screw at the top, which increases the density of the cotton, and thus diminishes its resistance. I have found this rheostat extremely sensitive, and altogether satisfactory.

I use for an electrode upon the cheek a carbon disc with a short metal handle, which fits into a hard-rubber shell. The disc is covered with moist absorbent cotton, which is held in place by the shell, and is renewed each time the instrument is used. The advantage in cleanliness on a sponge electrode is apparent. I have this electrode made with a very short handle, to be less in the way of the operator, when held by the patient upon the cheek. I prefer to place this electrode upon the cheek, on the same side as the eye to be treated, to make the current as superficial as possible, and to bring, as little as may be, the eye and intracranial structures into the circuit.

I apply the cathode to the cornea, as theoretically indicated, to produce disintegration of the scar tissue, but in practice have observed little difference between the action of the two poles.

Before placing the electrode upon the eye, I direct the patient to touch it to the tip of his tongue, as this gives about the same resistance as through the cornea, and adjust my rheostat until I obtain the current I desire to use. This seems a necessary precaution, as the cocainized cornea might be seriously damaged, without any sensation of pain giving warning should the needle fail to work properly, and too strong a current be accidentally employed.

The eye being previously well cocainized, I stand behind the patient, whose head is thrown back in an operating chair, and holding the lids well apart with the thumb and first finger of the left hand, bring the electrode in gentle contact with the cornea. It is quite essential that the lids shall be held well away from the electrode, for even when well anesthetized, the current produces much more pain when passing through the lid margin than through the cornea.

As a rule, the applications are of three minutes' duration. Individual cases will be found to vary greatly in their tolerance of the current. I usually begin with ½ milliampere from one to two minutes, and gradually increase the strength of the current and length of the sitting till 1 to 1½ m.a. for three minutes is reached, if the current is well borne.

I have used as strong a current as 3 m.a., but the stronger current seems to be no more efficacious, and is very apt to be followed by annoying irritation.

It is desirable to produce with each application just sufficient stimulation to give rise to an increased nutritive activity, and not to overstep the line and produce destruction of tissue, paralysis of function and stasis. The condition of a recent scar is reproduced, the conjunctiva becomes injected up to the corneal margin, and fine vessels are seen during the treatment moving on to the scar. This disturbance subsides by the second day, when the treatment is repeated. If the eye becomes irritable the applications have to be suspended for a time.

The results of this method of treatment are satisfactory in the extreme. The duration of the opacity seems to make little difference in the prognosis. Occasionally an eye is met with which, for no apparent reason, does not bear the current well, and the very mildest treatment is followed by a severe reaction; such cases are rare, however; in the majority of cases the reaction is slight, and the improvement very marked. The visual results obtained will depend largely upon the position of the cloud. When concentric with the pupil little improvement is seen till late in the treatment; but when the pupil is covered by the edge of the opacity the visual improvement is very marked at the outset; this is due to the fact that the scar always clears up from the periphery towards the more dense center. When the scar vascularizes easily the prognosis is most favorable, however old or dense the opacity may be.

In the small very white scars, sometimes seen in adherent leucomata, it takes a very long time to influence the center of the opacity, and the patient,

[1] I wish to acknowledge my indebtedness to my friend, Mr. W. E. Gibbs, M. E., for his kindly assistance in designing this electrode, and arranging other electrical appliances.

who is elated by the marked visual improvement obtained by the first few treatments, becomes discouraged with the much slower progress of the central opacity, and is very likely to abandon treatment; but in such cases as have persevered for some time there has been a slow but steady improvement, even in the dense white scars.

I will not trespass upon your time by a series of case reports, but will cite a typical case from a series personally reported.

CASE.—Patient M. F. presented himself at my clinic at the Lying-In Charity Hospital Dispensary May 14, 1889, giving the following history:

Twenty-seven years previously he had lost the left eye from an injury. Two months ago right eye became inflamed and painful. He had evidently suffered at that time from a severe keratitis, which had left a leucoma covering nearly the entire papillary area. Vision $\frac{6}{200}$; not improved by glasses. He was given 1 m.a. for one minute at the beginning, and the time was gradually increased up to three minutes. On June 8, after eight treatments, vision had improved up to $\frac{16}{200}$. After seven more applications, the current being somewhat increased—2 m.a. for two minutes having been given, vision rose to $\frac{20}{200}$. The eye, which had been somewhat irritable, now became quite severely inflamed, and treatment had to be suspended for some time. The eye had become quiet by August 5, when vision had improved to $\frac{20}{100}$, and by August 27 vision $\frac{20}{70}$ was obtained. Wishing to determine whether or not the treatment was entirely responsible for the improvement, I suspended treatment from this time till October 20. when I found vision $\frac{20}{70}$ as before. Treatment was not again undertaken till February. After six more applications vision $\frac{20}{50}$ was obtained on March 7, and after eleven more applications, vision $\frac{20}{40}$. The patient received in all thirty-four applications, average about $1\frac{1}{4}$ m.a. for three minutes, and vision was improved while under treatment from $\frac{6}{200}$ to $\frac{20}{40}$.

I have found much difficulty in pursuing these investigations to arise from the fact that most of the cases treated were hospital patients of a class to whom visual improvement, beyond that necessary for unskilled labor, was of no great moment, and after this was obtained, it was difficult to induce them to continue treatment. Many cases, therefore, had to be undertaken in order to obtain even a few which were satisfactory test cases.

Since the publication of my first series of cases I have been obliged to limit myself to a few selected cases, and have chosen some of the severer types for experiment. Unfortunately these cases cannot be reported, but I feel much encouraged by the progress they are making.

The establishment of an Electro-Therapeutic Clinic at the Brooklyn Eye and Ear Hospital has enabled me to put a large number of patients under treatment, and, although sufficient time has not yet elapsed to allow me to make any showing of results, the progress of the cases is sufficiently favorable to persuade me that I have not over estimated the value of galvanism in the treatment of corneal opacitis.

BROOKLYN, N. Y.

HAIG states that, other things being equal, arterial tension varies directly with the amount of uric acid in the blood; and that opium, mercury, etc., affect tension by their action on uric acid. Opium clears the blood temporarily, by storing the uric acid in the tissues; with the return of this to the blood comes the "opium rebound," with all the signs of excess of uric acid.—*Lancet.*

MEDICAMENTAL ELECTROLYSIS.[1]

BY DR. FOVEAU DE COURMELLES,
PARIS.

Laureate of the Academy of Medicine; Licencié des Sciences Physiques; Licencié des Sciences Naturelles; Licencié of Laws.

GALVANI, called at his time dancing-master for frogs, found the greatest curative agent and mechanical power known to-day. It was perhaps by chance (if such can be said of an invention) that Galvani, having suspended, by a copper wire, some skinned frogs to an iron balcony, saw their limbs moving each time that the frogs, swung by the wind, touched the iron. There was the revelation—it needed for the production of this force two metals and a liquid.

But one is not with impunity an innovator and inventor in this world. The happy Galvani, who should have left his name to Galvanism, was treated with contempt. He had a successful rival—Volta, from the University of Pavia—who succeeded not in confusing him, but gained also his place in the front row of electric science. Of the pretended vital force of the former, Volta made the electric fluid, the pile that bears his name, and the Voltaism.

Before the learned Italians of the end of the eighteenth century, there was only the electrical statics known, the one by rubbing a sulphur bowl between the fingers, like the thunderbolt by de Romas, the Abbot Nolles, and Franklin. Thanks to their successors, electricity was known no longer in repose, but in activity. They sought and found laws for its displacement, the rules that governed the phenomena which followed, and their usefulness, both industrial and medical.

One of the most simple applications, of electricity to the art of curing, is the application on the skin, slightly moistened, of two metals—copper and zinc, for example. If the contact is sufficiently prolonged, one obtains burns (real scabs, that is to say) with destruction of the tissues. It is, so to speak, a double-action electrical and metallo-therapeutical. We are all impressionable to some metal, which must be found—gold, copper, silver, lead—and which may recover the annihilated sensibility of certain nervous subjects. (Burg.) By way of retaliation, there exist some metals that are distractive to the organism, even by the simple application on the skin. With much more reason this noxiousness is increased if the metal employed brings forth an electric current: otherwise said, if it is a conductor of a rubbing machine, a pile, or a bobbin.

There is, then, a penetration of one of the conducting substances in the same way, whilst one becomes longer, the other decreases.

It is, again, a phenomenon of transport, the fabrication of diamonds made known by Berthelot; a current passes between two electrodes—one of coal, the other of copper. One discovers on the copper some very small crystals of diamond, and we may use this substance, reputed the hardest known, and solely reduced by itself. In return, the coal is covered by copper. There was then a double transport of one to the other, and *vice versa*. The electrotype gilding and silvering are facts of the same order. I instituted long since a series of experiments to apply to medicine these industrial facts. There are, in reality, a series of chemical reactions proved by characteristic colorations suddenly appearing; thus, solutions of cyanide of potassium and iron salt, separately ex-

[1] Read before the American Electro-therapeutical Association.

amined are colorless; but if you bring together one drop of either, the blue coloration appears suddenly. I have operated with the currents of galvanic batteries (continuous currents) and the induction currents (discontinuous currents) in the following manner: A pullet's skin covered a cyanided paper, and the electrodes are applied, having been beforehand moistened by an iron solution; suddenly, through two centimeters in depth, appeared the expected coloration. These phenomena of transport and penetration by the electric currents, the electrical statics, the accumulators, explain the variations of the ordinary electric treatment for the same illness in different patients. The composition of conductors must be varied, which, up to the present, has not yet been done by any one.

There is here the basis of a real medical revolution—the electrical penetration of medicaments. This invention, imparted to the Academy of Sciences the 24th of November, 1890, and to the Academy of Medicine the day after, impassions the physicians at the present day. After my new experiments the Academy of Sciences appointed a committee, whose members were MM. Berthelot, Charcot, and the Baron Larrey. The Academy of Medicine, in consequence of my long memorial, also elected a committee, whose members were MM. A. Gautier, Yariel, and Bouchardat. Even the title of my method has since been copied in London. A lecturer in Lyons' University, Mr. Imbert de la Touche, thinking he had the priority, related to the Electrotherapic Society at Paris experiments of the same kind. The *Lancet* described neuralgias cured by cocaine electrically absorbed. The experiments of MM. Gautier, Newmann, Laurance, and Arthur Harries have confirmed my methods with people of science.

Edison imparted to the Congress of Berlin the fact of a gouty person with nodes being cured by dipping his hands, one in a solution of carbonate of lithium, open to the positive pole of a pile, the other in a solution of common salt, open to the negative pole.

The enthusiasm was great in France after this solitary fact, which could be only pure electrolysis, destroying the tissues by chemical action, thanks to the electrical action of continuous currents.

This dissolution of gouty nodes may have been more rapidly made by the penetration of carbonate of lithium, but would have been produced by using the electrolysis alone. This experiment must be accepted with reserve. Besides, it is not applicable to the human body; for a man thoroughly immersed in a liquid bath crossed by an electric current, is neither penetrated by the liquid of the bath, nor by the current, for the latter, which must choose two ways—one easy (the liquid's), the other hard (the man's)—takes certainly the easier. With two baths for the arms, the current passes through the body, for, having Hobson's choice, it overcomes the resistance, closing the circuit.

But, I repeat, this method is impracticable for the rest of the organism. This idea, put into practice this great while, allowed me to dissolve cysts and tumors, and without referring myself at first to the recoveries of patients, I began to ascertain if penetration produced itself without the human body. This idea being once proved true, I made it practical.

Let us examine the multiplied actions of this method generalized by me; neither baths, nor application of continuous currents alone with peculiar electrodes covered with a special substance for each case. The necessary materials, corsets, probes, trocars, cupping glasses, are made by one of our most eminent professional men, Mr. Chardin.

The use, varying according to patients, of several kinds of electricities is made in this manner. All the currents transfer the substances; some, continuous, decompose those which are composite, only carrying a part of their elements; the others, discontinuous, carry for, and such as they are, the active agents.

One distinguishes at once the pathological cases to which it would be suitable to apply one or the other of these currents. For tumors, synovial cysts, glands, wens, stone, in fact all abnormal production or local hypertrophy of the organism, there are the continuous currents complemented by medical dissolvents, the iodides, the salts of lithium, the bicarbonate of sodium. One understands evidently, that if one operated on the skin or in the natural cavities, the instrument differs in shape. On the skin a kind of cupping-glass helps the electrical penetration of the medicaments, by the porosity of the skin produced by a partial vacuum made in the instrument.

Neuralgias, rheumatisms, hepatic and renal colics, their painful symptoms disappear with the continuous currents descending, and the introduction of substances containing opium, aconitine, quinine.

The loss of feeling, muscular atrophy, are destroyed by continuous currents ascending, with strengthening agents as adjuvants, such as strychnine, phosphate of lime.

Paralysis, troubles of the nervous system, normal functions decreased or destroyed, find their master in the discontinuous currents with the introduction in the organism, thanks to them, of tonics or excitants, according to the case. Baths of static electricity with medicamental absorption, electrical descending shower baths, are precious adjuvants. This is not a panacea but a vehicle, a way of transferring medicamental substances.

It is useless to speak of the advantages of this new therapeutic method. With the same, besides the general illnesses on which the action is slow and must be completed with medicaments absorbed by the mouth, it acts principally on local manifestations.

More absorption of nauseous drugs; it is no longer necessary to take these in unequal doses, as neither the digestion or the circulation requires to be completely saturated before carrying the active agent in infinitesimal quantity to the painful part. Here electricity cures the latter—the penetration is weak but it is sufficient.

For calculi, not daring to experiment with it in the human body, I operated *in vitro*.

If a piece of chalk placed in a solution of bicarbonate of sodium is crossed by an electrical current, you see the angles become round, which indicates a destruction of the chalk. This substance being more difficult to destroy than oxalate of lime or urate of sodium, which generally form calculi, this experience permits one to expect the suppression of painful operations, such as cystotomy or lithotrity. An application made and tried by myself on the guinea pigs is based on the following facts: blunt instruments may with impunity perforate the organs. An American had even the audacity to prick the heart with a needle in order to assure himself of death, and if the patient was not dead, far from killing him, this little operation would resuscitate him. The puncture of pheuritics is also inoffensive, and evacuates the noxious liquid.

They know also that the electrical current accompanied with chemical decompositions will kill the microbes. That also, by means of special trocars of variable dimensions with the cases, one can make pass usefully the electrical medicamental currents, that is to

say cure through the sick organs themselves, perforated for the occasion. The lungs of phthisics in the place of the cavities, which are shown by ausculting, are amendable to this treatment.

Some have often confounded lately and they confound still, my method, the *medicamental electrolysis*, double action of electricity and of a medicament, with the cataphoresis, simple action of transport.

Evidently there is a considerable difference between these two groups of phenomena, the latter being included in the medicamental and electrical actions.

In the cataphoresis you must overcome the resistance of the interposed objects, in order to let the therapeutic substance pass through them, as also it is necessary for that to have currents of considerable intensity, dangerous for the patient should there be penetration, or inoffensive without transport in consequence of insufficient intensity. In my instruments, I suppress the resistance of liquids, for a metallic wire of platinum carries the current to the contact with the painful part.

The active solution is crossed by the current, and arrives also at the seat of the disease; the cataphoresis only utilizes a part of the electrolytic actions, whilst the medicamental electrolysis uses them all.

Let us pass now into the clinical province, by some typical observations only, reserving a return to them in order to elucidate more thoroughly the question, if it be necessary.

No. I. Mrs. J. B., thirty-two years old, being attacked by articular rheumatism, great anæmia, frequent syncopes. She cannot be touched on her left knee without crying out for pain, and was brought to me in a handbarrow on the 18th of September, 1888.

Employment of electrodes moistened with following solution:

℞.—Benzoate of lithium,
Iodide of potassium,
Bicarbonate of sodium.....āā 5 grammes.
Aquæ destil..... 150 "

and continuous descendant currents during one hour from 11 milliamperes in intensity, with 5 piles from Chardin with hydrargyri bisulphas.

The 16th of October, one may touch the patient's knee; the 17th of October, the patient can lean upon her painful leg; the 18th of October, she is able to step slightly; and the 24th of October, recovered; she walks as well as any one; saw her again since; she looks upon me as her saver.

Mrs. V. D., forty-five years old, being attacked with an uterine fibroma, treated in vain beforehand by the electric currents; she presented herself before me the 10th of March, 1889. I decompose the iodide of potassium upon the tumor itself, by putting it into the tube open at the negative pole. According to the Faradic rules, which govern the electrolysis, the iodine, seeking to reach the positive pole, will pass into the tumor; besides I noticed the decomposing action of the negative pole. At the positive, the iodine, freely expelled, will likewise penetrate into the tissues from the abdomen, with which the electrode is connected. The tumor is about 20 centimeters broad. Three months after, the uterus, a little bigger than naturally, is only 4 or 5 cubic centimeters in dimensions.

No. III. Mr. D. F., seventy-one years old, presents an enlarged prostate gland with dysury and uræmic symptoms. No sound passes through. (August 20, 1880.) It is the time of the holidays. I meet with no surgeon, and decide to undertake the supra-pubic tapping. I put a soft sound in the hole made by the trocar; the uræmia ceases, but my patient being threatened by a probable new attack, I electrify his prostate; the negative pole put in the urethra, receiving iodide of potassium drop by drop; the positive pole put into the rectum and receiving the same solution. The currents are 5 milliamperes in strength, their employment enduring ten minutes. After twenty sittings only the patient recovered and set out for the country.

No. IV. Mr. René Belin, M.D., from Paris, sent me successively two gonorrhœa patients, who could not be cured by any other treatment, thinking that my method acting *loco dolenti* would alone be able to cure them. I applied nitrate of silver in the urethra by the positive pole, the negative touching the perineum during five minutes. The positive electrode modifying the mucous membrane is put on the more painful parts, 5 milliamperes are sufficient: 10 sittings for the first, 12 for the second are sufficient for the curing. There has the medicamental electrolysis acted as an injection, but made exactly on the painful parts, which never happens with the usual injection.

No. V. Mr. A. B., thirty-four years old, left hemiplegia in consequence of a phlebitis. The diagnosis in question was hysteric hemiplegia, or hemiplegia by brain thrombosis. No matter, I employ, April, 1889, the discontinuous currents with electrodes moistened with strychnine. At first frictions with tincture of nux vomica miscarry, and I discontinue them. Nevertheless the electric action produces in the arm a medicamental eruption of strychnine; even in one pole the too strong exciting of the vaso-constriction produces a local cyanosis during some hours.

I have chosen typical examples only, but my cases are more numerous. They are at the service of the American Society of Electrotherapia.

RUE DU PRINTEMPS MALESHERBES, SEPTEMBER 2, 1891.

ELECTRICITY IN ANCHYLOSIS.[1]

BY DR. VON REITZ,
NEW YORK.

MR. PRESIDENT, GENTLEMEN AND LADIES: To whatever cause anchylosis may be attributable, it presents itself clinically as true or false.

The true form is based upon osseous union of the articular surfaces; the false form, of either fibrous adhesions or chondroid interposition, between the articular surfaces.

In either form we may find osseous, fibrous, and chondroid formations; but to form true anchylosis the areas of osseous union of the articular surfaces must be large. A small ossified area will not constitute true anchylosis.

As a guide for prognosis, it is well to remember that, as a rule (but not always), suppurative lesions of the joints are likely to be followed by true anchylosis, while catarrhal lesions never favor osseous union.

The differential diagnosis is often absolutely impossible, and it would be bad practice to resect a joint because it does not yield—force used—under ether.

False anchylosis, even with some osseous union, yields to the constant current with the assistance of massage and passive motion; provided the treatment is carried on earnestly and intelligently. And it is safer to expect an anchylosed joint to be false, and to treat it accordingly, than to use the saw at once.

[1] Read before the American Electro-therapeutic Association, September 26, 1891, in Philadelphia.

If, after about ten sittings, the joint does not improve, we then have time to use the saw.

At present I have a man with anchylosed elbow and wrist joints, following neglected erysipelas, which appeared to have undergone osseous union, and which, though slowly, yielded to my efforts. The pus had burrowed into the joints, and was left there for too long a time; therefore, bony union can be expected, but not diagnosticated.

As to the treatment of anchylosed joints by electricity, we have to remember that the synovial membrane secretes an alkaline lubricating fluid. Therefore, our aim must be to help nature by stimulating the functions of the synovial membrane.

If we remember the chemical effect of the constant current, we will find that the negative division of it creates an alkaline reaction, which has a dissolving tendency.

That is exactly what we need here. Consequently, the affected joint must be enclosed snugly by an electrode (of suitable material), and connected with the negative pole. Another large electrode may be placed over any indifferent part—best over the epigastrium—and connected with the positive pole.

With large electrodes powerful currents can be used without causing pain or inflammation. For the larger joints up to 100—even 120—m. a., in half-hour sittings, three times per week, are generally sufficient; but, of course, each case has to be treated according to its demands.

Much will depend on the massage, which has to be given before the current, on the attempts at, or perseverance in, passive motion, and on the constitutional treatment; also on the general hygienic conditions.

I will not cite cases, but state that fibrous anchylosis in the knee-joint has yielded to me in two months so as to allow the patient to walk up stairs and down without difficulty, though he had to use some effort; in two more months he walked the stairs without effort. I left him to himself, and now, after four months without treatment, he is well.

I intended to present before you a very interesting case of chondroid anchylosis of the cervical portion of the spine and occiput, and of both shoulder-joints.

That man suffered an injury thirteen years ago, and when I took charge of him—after some one else had already tried electricity on him, without success—his head and spine appeared as if cut out of one piece, and not the faintest motion was allowed by any force. The right shoulder-joint was also completely anchylosed; the left shoulder-joint, however, allowed motion to an extent of 20°.

This man improved wonderfully, and I am more than sorry he refused to be here, but hope to get his consent for some other occasion.

141 WEST 132D STREET.

SUMMARY OF MY PERSONAL EXPERIENCE WITH ELECTROLYSIS IN THE TREATMENT OF FIBROID TUMORS.

BY J. H. KELLOGG, M.D.,
BATTLE CREEK, MICHIGAN.

I HAVE treated in all between 80 and 90 cases. Have summarized the results in 60 cases, all of which were treated previous to the present year.

Of these 60 cases, 4 were not treated a sufficient length of time to give the treatment a fair trial, only 1 or 2 applications being made. Nine cases were made worse, or not much benefited. One of these was a case of soft myoma, which, in my observation, does not yield satisfactory results from this mode of treatment. In 5 cases, the tumor was not diminished in size, but other symptoms were considerably relieved. In 11 cases, the tumor was not diminished, but the other symptoms, pain, weight, etc., entirely disappeared. In 17 cases, the tumor was considerably diminished in size and the patient restored to good health. In 14 cases, the tumor disappeared entirely, or became barely perceptible.

Of the cases treated long enough to give the treatment a trial, 84 per cent. were substantially benefited, 75 per cent. were practically cured, and in 55.3 per cent. the patients were not only restored to good health, but the tumors were considerably reduced in size, or disappeared entirely.

From a study of these cases, as regards the nature of the tumors, I found 32 were interstitial, 9 sub peritoneal, and 15 sub-peritoneal and interstitial. In 1 case in which the greater part of the tumor was interstitial, a portion protruded into the cavity of the uterus. The results in these several classes of cases were as follows:

Of the 32 interstitial tumors, in 9 cases the tumor was diminished in size and other symptoms cured. In 6 cases the tumor was not diminished in size, but the other symptoms disappeared. In 9 cases the tumor was not diminished, but other symptoms were in part relieved. In the 14 cases which comprised all the cases completely cured, both the tumor and the symptoms disappeared. In a few instances some small trace of the tumor still remained.

In the 9 cases of sub-peritoneal growths, 4 were not benefited, or made worse. In 1 case there was a slight benefit; in 2, other symptoms were relieved, but the tumor was not reduced in size; and in 2, the tumor was reduced in size and other symptoms wholly relieved.

In the 15 cases in which the tumor was both sub-peritoneal and interstitial, 5 cases were a complete failure, 1 slightly benefited, 4 relieved of symptoms without reduction of tumor, and in 5, there was reduction of tumor and cure of other symptoms.

From these statistics, it appears that the cases of fibroid, which are most benefited by electrolysis are cases in which the growths are interstitial in character. Those next most likely to be benefited are cases in which the growth is interstitial and sub-peritoneal in character. Those least likely to be benefited, are sub-peritoneal growths. Doubtless those most amenable of all to treatment are sub-mucous growths, but of this class no well defined cases have come under my observation, with the exception of 1 case referred to, in which a small part of the growth was sub-mucous in character. In this case the patient made a good recovery, the sub-mucous portion of the growth sloughing away and the interstitial portion gradually diminishing until the uterus was restored to nearly its normal size.

I have arranged a table, which concisely presents the results of treatment in the 56 cases, according to which it appears that of the cases of interstitial fibroid, 43.7 per cent. were cured, while all were benefited and none made worse. Of the other varieties, none were absolutely cured, and in the cases of sub-peritoneal growths, 44.4 per cent. were either not benefited, or made worse, and of the sub-peritoneal and interstitial, 33.3 per cent. of the cases fall in the same category:

	Number of cases.	Per cent. cured.	Per cent. symptoms cured, tumor diminished.	Per cent. symptoms cured, tumor not diminished.	Per cent. symptoms slightly benefited, tumor not diminished.	Per cent. not benefited, or made worse.
Interstitial.....	32	43.7	28.3	18.7	9.	
Sub peritoneal.....	9		22.2	22.2	11.1	44.4
Sub peritoneal and interstitial.....	15		33.3	26.6	6.6	33.3
Interstitial, excluding those cured.	18		50.	33.3	16.6	

It having occurred to me that the age of the patient might be a factor of some considerable importance in these cases, I made a study of my cases from this standpoint, and found that of the 14 cases in which no material results were accomplished, 78.7 per cent. of the patients were under forty years of age, and 42.7 per cent., or nearly half, did not exceed thirty-five years of age. The cases of fibroid tumor in which other symptoms were cured, but in which the tumor was not diminished in size, the average age was 43.7 years. Cases in which the tumor was considerably diminished in size, and the patient restored to good health, averaged forty years of age. The 14 cases in which the tumor entirely disappeared, or became barely perceptible, has an average age of 37 9 years. The low average in this class of cases is evidently due to the fact that in nearly all the cases the tumors were small. If the patients had been older the tumors would doubtless have been larger. Small fibroid growths doubtless exist in many cases for years before they are discovered, giving more or less inconvenience, but without making the patient aware of the real cause of the difficulty, not being large enough to be readily recognized.

In the earnest, and sometimes bitter, discussion of the proper method of treating fibroids which has been going on between electricians and surgeons, particularly during the last few years, many unfair positions have been assumed, and it seems to me that both sides have taken extreme grounds. There are, unquestionably, cases of fibroids which may be satisfactorily treated by electrolysis, and other cases which are fit subjects for the surgeon. There is still another class in which the patient herself, or special circumstances, must decide which mode of treatment shall be adopted. In my opinion, electrolysis may be properly employed, and with expectation of success.

1. In cases of small or moderate-sized tumors.
2. In interstitial growths of any size.
3. For relief of hemorrhage and pain in any class of tumors.
4. As a means of expediting the climacteric change in any class of cases in which the application is well borne.

Cases should be subject to surgical treatment; either removal of the appendages or hysterectomy.

1. In cases of very large tumors, which have resisted the application of electrolysis for a reasonable length of time, and in which there is an uncontrolled hemorrhagic tendency. The hard multi-nodular fibroids are most likely to be benefited by this operation.

2. In cases of suppurating tubes, or a seriously diseased condition of the appendages. A diseased condition of the appendages is certainly not rare in cases of fibroid disease of the uterus, especially in old cases. In all cases of uterine fibroid in which I have operated for removal of the appendages, I found the latter seriously and hopelessly diseased.

3. Hysterectomy is the only remedy in cases of soft œdematous myoma. These tumors often develop after the menopause. They are seldom hemorrhagic, and are likely to grow to an enormous size.

I have operated for removal of the appendages in 10 or 12 cases of this sort; have performed hysterectomy in 6 cases, and removed pedunculated subperitoneal fibroid tumors in 4 cases. Have had 1 death, from removal of the appendages, in which case the patient was very low before operation, having pulse of 160. Have had but 1 death from removal of an enormous soft œdematous myoma, weighing forty pounds, in an aged woman. The patient rallied well from the operation, but the tumor had been grown fast to the anterior wall of the abdomen for so long a time that very vascular connections had been established, so that the return flow of blood from the tumor was chiefly through the abdominal wall. After removal of the tumor, very extensive serous oozing occurred, and the patient died twenty four hours after operation, apparently from serous hemorrhage. Several quarts of serum was found in the peritoneal cavity at the post-mortem examination.

As regards to the safety of the three methods of treatment proposed—hysterectomy, ovariotomy and electrolysis—it must be conceded that electrolysis, although it can never be considered perfectly safe, is a much less formidable operation than either ovariotomy or hysterectomy. In order to get good results from electrolysis, however, it is necessary to observe the most scrupulous care, not only in the applications of the electrical current, but in the after management of the patient. When gynecologists send patients off to their homes on a street car, in a carriage, or on a railway train, a distance of two to twenty miles after the application of 100 to 300 milliamperes of current, it must not be a matter of surprise that now and then bad results are experienced. It would be, indeed, a surprise if such patients did not sometimes suffer from frequent attacks of pelvic inflammation; so in the end they may be worse than at the beginning of treatment. It is my custom to send patients to bed for twenty-four hours after each application of the current, and in some instances it is necessary to keep the patient in a horizontal position for two or three days, as a safeguard against inflammatory reaction. On this account, I think the treatment can be carried on much more satisfactory in a hospital, where the patient can be under constant observation, than in ordinary office practice.

Another cause of failure in the employment of electrolysis, is neglect to use such other means as are known to be serviceable in the management of these cases. I do not think it the duty of the surgeon to neglect to employ for his patient whatever remedy he believes may be beneficial simply for the purpose of enabling him to differentiate more exactly the results of his therapeutic efforts. I have met a number of cases in which the hemorrhage, while not readily controlled by electrolysis, speedily yielded when ergot in efficient doses was added, although previously the employment of ergot had been ineffectual. I have employed hydrastis with success in similar cases, and also invariably resort to the use of hot vaginal douching, employing alum and other astringents, both with the douche and the tampon.

In hemorrhagic cases I invariably begin by thorough curetting of the endometrium, which enables me to

secure much more marked and immediate results than if the electrolysis alone is employed. I find also that by this means the disposition to increase of hemorrhage, which is often noticeable at first when electrolysis is employed alone, is wholly avoided.

The hygiene of the patient, and all measures calculated to improve the general health, must receive careful attention.

In the study of the action of the electrical current I have become more and more satisfied that its chief curative action in these cases is through its cauterizing effect upon the endometrium. The benefit often obtainable in these cases by thorough curetting has long been recognized. Electrolysis accomplishes the same results, not so rapidly, but more efficiently, in that its action penetrates the uterine tissues to a greater or less extent, according to the strength and the duration of the application. I have observed in a number of cases slight febrile attacks following strong applications of the current, which were attended by symptoms of phlebitis, and have noted that in these cases the most rapid improvement is apparent. In one case a tumor, which reached nearly to the epigastrium, of many years standing, diminisned more than one-half in size within three months as the result of 2 or 3 applications of the current. After the third application, in which a current of a little more than 300 milliamperes was employed, the patient suffered a severe attack of phlebitis, not only in the tumor, but extending into one limb. For several days the patient was so ill I despaired of her life. She made a good recovery, however, and is well to-day.

Several other similar experiences, in which the symptoms were not so violent, however, together with the fact that the greatest improvement noticeable is in cases of sub-mucous and interstitial fibroids, have convinced me that the current acts chiefly through its polar, rather than by any subtil interpolar action. Interpolar action of the current must, necessarily, be transitory, whereas the destruction of tissue produced by the cauterizing action of the positive pole, which I use exclusively in the treatment of this class of cases, is something tangible, efficient and permanent in character, as the result of which blood-vessels are plugged by coagulation, and afterwards permanently closed by cicatrization, and thus the nutrition of the morbid growth materially lessened. My constant observation has been that a tumor to be benefited by electrolysis must be of such a nature and located in such a manner as to be influenced by an impression upon its vascular supply, such as described.

It seems to me that surgeons are somewhat chargeable with unfair arguments, when they assert that no case can be produced in which a fibroid tumor has been made to disappear by the employment of electrolysis, and then insist, when a case is presented to them, that it was either a case of sub-involution or that the disappearance of the tumor was a mere coincidence, as such tumors have been known to disappear when electrolysis was not employed. The only fair and scientific attitude to be assumed, it appears to me, is to hold one's self in readiness to employ electrolysis in cases suited to its application, and equally willing to subject to surgical treatment such cases as are unsuited for treatment by the electrical current.

In the *British Med. Journal*, of October 31, 1891, is described the case of a boy affected with jaundice, covering the upper half of his body and ending abruptly at the level of the umbilicus.

THE INFLUENCE OF GRAVEYARDS ON PUBLIC HEALTH, OR THE SANITARY DISPOSAL OF THE DEAD.[1]

By J. W CARHART, M.D., C.M., D.D.,
LAMPASAS, TEXAS.

THE question of the disposal of the dead bodies of human beings is one that has attracted the attention of men in all ages. As the years roll by this question thrusts itself upon our attention with accumulated force, and demands a wise and proper settlement.

One will see, at a glance, that it is surrounded with peculiar difficulties. If it were a *simple* question it would be readily solved. There would be no difficulty in approaching and disposing of it from the standpoint of sanitation. The matter of economy in the disposal of the dead would involve but little time and labor to settle.

The element of propriety is one upon which most people, in enlightened communities, could readily agree. The medico legal aspect is one involving no great difficulty. The chief trouble in the settlement of the question grows out of the æsthetic and the sentimental aspects.

Love and veneration for departed friends are natural to the human breast. Their absence is the badge and stamp of brutality; indeed, it degrades one below the beasts of the field, who bellow and grieve around the spot where a fellow has fallen. This sentiment cannot be treated lightly in the discussion of this serious and momentous question.

Such a disposal of the dead as would shock the feelings of the refined and enlightened masses can never become general. It is for this reason that so many methods of disposal have been discarded in the past. Love hangs about the couch of the dying and whispers words of cheer and comfort, and takes the parting hand at the brink of the stream beyond, whose farther shore we cannot see; and when the spirit has flown to that world where faith builds eternally, Love still clings to the mortal remains until Nature repels with tissue decaying and faded beauty mocks with ghastly repulsiveness.

Not even then does Love quit the scene. When the body is buried in a lonely grave Love plants the sprig of acacia, even though it be among "rubbish," lest the grave should be forgotten.

> "Perhaps in this neglected spot is laid
> Some heart once pregnant with celestial fire;
> Hands that the rod of empire might have sway'd
> Or waked to ecstasy the living lyre.
>
> "Yet, e'en these bones from insult to protect,
> Some frail memorial still erected nigh;
> With uncouth rhymes and shapeless sculpture decked
> Implores the passing tribute of a sigh."

Love has woven sweetest fancies into imperishable verse, and hung the tribute in bright garlands about the sombre portals of the tomb.

So Robert Pollock sings of Helen at her grave:

> "Watch there, my hopes, watch Helen sleep,
> Nor more with sweet-lipped fancy rave;
> But with the long grass sigh and weep
> At dewy eve, by Helen's grave."

It becomes us, then, to approach this question of "The influence of graveyards on public health" with circumspection, gentleness, fidelity, and truth.

---

[1] Read before the Mississippi Valley Medical Association at St. Louis, October 15, 1891.

A brief sketch of the history of the methods of the disposal of the dead will not be out of place at this point in our discussion.

Every one knows that the methods of disposing of the bodies of the dead have differed with different nations and people, and at different times. The most common modes have been interment in the earth, and burning on a funeral pile.

Burial in the earth is, doubtless, the oldest mode. The graveyard, therefore, has the stamp of antiquity, and yet, in the estimation of the masses, is not antiquated.

The practice of burning the bodies of the dead was very general among the Greeks and Romans. After the burning the ashes were collected and deposited in a tomb or urn.

It is recorded that Sulla was the first member of the Cornelia gens who was burned.

So far as we can learn the Egyptians never practised burning their dead.

Interment of the dead was always practised by the lower orders among the Romans. Tacitus speaks of the embalming and interment of Poppæa, the wife of Nero, as a deviation from the general practice.

It is quite probable that the early Christians never practised burning of the dead, and the custom among the Greeks and Romans had gradually faded out before the conquoring march of Christianity. This may not have been the result of direct teaching of Christianity, or of its contemplated influence, for we find many practices clinging to the higher forms of civilization, which are not fairly chargeable to Christianity, which is the fosterer of those forms of civilization.

It must be admitted, however, that both among Jews and Christians the common, if not universal, method of disposal of the dead in earlier ages was by interment in the earth.

Thus we read in Genesis xxiii, 2-4, "And Sarah died in Kirjatharba; the same is Hebron in the land of Canaan: and Abraham came to mourn for Sarah, and to weep for her.

"And Abraham stood up from before his dead, and spake unto the sons of Heth, saying, I am a stranger and a sojourner with you; give me a possession of a burying place with you, that I may bury my dead out of my sight."

And again in II Chronicals xxxii, 33, we read, "And Hesekiah slept with his fathers, and they buried him in the chiefest of the sepulchres of the sons of David: and all Judah and the inhabitants of Jerusalem did him honor at his death."

In New Testament times the dead were buried. Christ's body was wrapped in clean linen and laid in the tomb of Joseph of Aramathea. In the Acts v, 6, we read: "And the young men arose, wound him up, and carried him out, and buried him." So that Ananias, as bad as he was, received decent burial at the hands of Christians.

"Investigations among the sepulchral tumulti of the northern nations show clearly that, though before the introduction of Christianity the practice of cremation prevailed; that of burying the dead unburned was practised also in the later periods of the prehistoric era, in Norway and Denmark, as well as throughout Germany, France and England. Tacitus notices the simplicity of the funerals among the ancient Germans. Like the Romans, they buried their dead. The things which a German valued most were his arms and his horse; these were added to the funeral pile, with the persuasion that the deceased would have the same pursuits in his new state of existence."

The Parsees at Bombay have a peculiar manner of disposing of their dead. They scorn to rot in the earth like Jews, Christians and Mohammedans, and to be burned, like the Indians. They allow their dead to be devoured by birds of prey.

Herodotus says of the ancient Magi, that they never interred their dead until they were torn by birds or dogs.

There is a people in the southern part of Russia who think that they can show no greater honor to their dead friends and relatives than to eat them.

You will observe, from this rapid sketch of the history of the disposal of the dead that the methods at different times, and among various peoples, have widely varied.

You will observe also that the particular method has been due to custom, without any special reason on the one hand, or to religious opinions or beliefs on the other.

The development of these two facts is the chief reason for the sketch of history I have here presented.

Custom or habit has its power which few minds, however enlightened, or broadened by education and culture, are capable of ignoring.

We are all apt to pride ourselves on the customs of our ancestors. Some even go so far in their backward reach to the habits of illustrious progenitors as to apply the term "monkeying" to idle intrusiveness. Is not this carrying things too far? Is it not time for enlightened Christians and scientists of the nineteenth century to ask the reason for the grave customs of the fathers?

If we shall continue to bury our dead, let it be for some higher reason than the practice of the Jews and early Christians.

If we propose to follow Jewish customs, let us bury our dead swine and not eat them.

I said that religious opinions and beliefs were another reason for the practice of the burial of the dead.

One's religion and politics are too sacred to admit of meddlesome interference, or trifling from other people.

We should grant to all others what we claim for ourselves. I therefore approach this feature of my subject with due caution, and with the broadest charity.

The hope and expectation of the resurrection of the body entered into the faith of the Jews, and constitutes a gem in the resplendent faith of the Christian. Nothing should be said by Saducee, Scientist or Sophist to mar the beauty of that gem of Christian faith.

If I knew it to be an error I would not rob the mother's breaking heart of the only last hope that sustains her, that she shall meet her deceased baby on the morning of the resurrection, and clasp it to her breast as she used to do.

He who would rush into the "Holy of Holies" of a sorrowing human heart and commit vandalism there by breaking to pieces the sacred things of that temple, without the ability to replace them with better, deserves execration which would melt my pen or scorch these lips should I attempt the fiery words. Far be it from me then to disregard this sacred hope.

But may I not, with all delicacy, say that a mistaken idea in regard to God's ability to raise the dead is at the foundation of many a Christian's opposition to cremation and his strong preference for burial in the earth?

Is not the notion of God's limited power, derogatory of His character—does not limitation undeify

Him? What Christian will deny a resurrection to those buried at sea and consumed by the monsters of the deep, or to such believers as are accidentally cremated in burning buildings?

The Christian must hold that, since God is God, He can as readily recall armies of departed from the ocean, and the places laid waste by fire as from the worm infested grave:

"How frightful the grave,
How deserted and drear,
With the howls of the storm wind,
The creaks of the bier
And the white bones,
All clattering together."

My faith grasps the thought that around Vesuvius, where thousands were both burned and buried, armies of the living will start from the ruins of Herculaneum and Pompeii—those who were burned as well as those who were buried—the former, mayhap, purer than the latter, as fire is a purifying element of God's universe.

Having thus disposed of some of the most vexing questions surrounding this subject, we desire to look at it as sanitarians uninfluenced by prejudice, custom, or religious belief.

The word cemetery is from the Greek, and signifies "a place of rest or sleep."

This is a very beautiful idea, and Christianity alone has undertaken to make the place of the burial of the dead beautiful.

Pagans have erected mausoleums, the most costly on earth, as instance, the Alhambra, the tomb of Cæcilia Metella, and the tomb of Hadrian on the banks of the Tiber, best known as the castle St. Angelo, but nowhere in Pagan lands are cemeteries to be found. Well kept cemeteries are rare in Christian lands. The graveyard is the common, almost universal burying place of the dead.

They were formerly in connection with the church, and hence were called churchyards, so that, as the worshipers came to the house of God they might be reminded of their "latter end," as they looked upon the desolation that reigned there. This, shall I say, accursed practice made religion a gloomy subject, and without doubt was the occasion of the ruin of thousands of souls.

I have in my memory now the picture of a churchyard, possibly the counterpart of the one in which Gray wrote his immortal Elegy. It was in a lonely place, at a cross-roads. The church, standing back from the road a respectful distance, was dilapidated; the paint was worn off by the storms of years, the blinds were broken and fallen to the ground, or else hanging by one hinge, aslant the weather boards; the fence was broken down in places, and careening where it pretended to stand; the graves were over grown with weeds, and tombstones black with age had fallen prostrate as if in mourning, or were leaning, as stalks of corn after the winds and frosts of autumn. Blackberry bushes were rank and tall, and their heavy odor crept into the windows and modified the heavy, pent up atmosphere of the sanctuary; swine had rooted the place over, as if to show contempt for boasts of human greatness, whilst irreverend children from a little country school-house near by had tried their skill by aiming spit-balls at the neglected tombstones. In summer time the swallows and song birds had perched upon the sculptured marble and had pronounced, in their own way, "Dust to dust."

Graveyards are generally situated on high ground, frequently above the level of village cities and city elevations, and the wells and other sources of water supply receive the drainage from these enclosures of the dead.

In very many instances graveyards are found in the very centers of large cities. The great city of Philadelphia has such an enclosure, where sleep the remains of Benjamin Franklin and his wife.

If that old scientist and sanitarian could rise from his dusty, worm-infested bed, he would ask to be taken without the city limits where his remains would not endanger public health, and where the earth would not forever tremble beneath the crash of ponderous wheels.

The decomposition of animal substances develops a gas, known as carbonic acid, which, though it exists in nature in atmospheric air in the proportion of one to one thousand, when much in excess of this the atmosphere is poisonous, and suffocative, as in close rooms, occupied by a number of people. In the ordinary process of respiration oxygen is consumed and carbonic acid gas is generated, and the respired air soon becomes deadly; as was the case in the "Black Hole" in Calcutta.

Besides carbonic acid gas, there are other and more deadly gases generated in the decomposition of animal substances, and which aid in the spread of epidemic affections, more particularly fevers of a low type, such as typhus and the like.

"The injurious consequences to health from the presence of a dead body some times in a state of rapid decomposition, in a small, ill ventilated apartment, particularly when death has been the result of malignant diseases, cannot be disputed, and the moral effect on the living is degrading."

The recognition of the numerous evils attended on the usual church and churchyard interments, in England led in 1852, to the passing of the Act 15 and 16 Vict., cap. 85 "to mend the laws concerning the burial of the dead in the Metropolis," and this followed in the succeeding year by the Act 16 and 17 Vict., cap. 134 for extending the provisions of the Act of 1852 to places beyond the Metropolis, in England and Wales Many other acts for extending the provisions or for regulating minor details have followed. In 1855, the 18 and 19 Vict., cap. 68 extending the measure to Scotland; and the 19 and 20 Vict., cap. 98 in 1856, to Ireland.

By these acts intra-mural interments in England are rapidly being discontinued.

The dread of being buried alive is common; and the belief that many are thus buried is very general. There is almost no evidence in support of such a conclusion. In consequence of the development of gases to which we have already referred, the coffin is frequently burst asunder, the shroud torn, the body rent and frequently turned in its coffin. The discovery of such a condition of things has led to the belief spoken of.

This gas, not unfrequently rises to the surface of the ground and may assume, as marsh gas sometimes does, a phosphorecent glare, which has led the ignorant to believe that graveyards are the habitat of ghosts. We have the word ghost from the German *geist*, signifying gas, breath, spirit.

In conclusion, then, the summation of the whole matter is as follows:

1. From whatever standpoint this subject is approached it must be with care and gentleness, since the graveyard, though a constant menace to public health, has a pseudo sacredness, fostered by the profoundest sentiments of our natures.

2. This method of the disposal of the dead should be founded on reason and not on custom or sentiment.

3. The interment of the dead in the earth was never enforced by any statute, Jewish or Christian, and was merely incidental to both dispensations.

4. No law, human or divine, requires us to dispose of the dead in a manner prejudical to the health and comfort of the living.

5. Whilst it may be an open question as to the right of the State to dictate as to the manner of the disposal of the dead, except in exceptional cases, it is clearly the province and duty of the State to prevent such disposal as will, in any wise jeopardize the interest of the living.

6. From all the facts at our command, we are led to the conclusion that, the graveyard should become a thing of the past; and that incineration is the method most in accordance with science, sanitation, æsthetics, reason and religion.

7. We would add, as a corollary to these several conclusions that, since the intelligent, broad-minded physician is the almost exclusive guardian of public health in seeking to prevent the development and spread of disease, it is plainly his duty, when cemeteries are being located, to use his best endeavors to have them so placed as to jeopardize as little as possible the public health; and for its moral effect he should encourage efforts to beautify existing cemeteries; and that he should seek, as fast as possible, without too much violence to the tender sensibilities of the masses, to encourage incineration of the dead, or some other method more in harmony with sanitary science than the common modes now practised.

If the thoughts we have here presented shall be instrumental in leading any of my professional brethren, or of the public at large, to better thoughts in regard to the disposal of the bodies of their dead, or of the dead in communities generally, thus contributing to the preservation of the health and happiness of the living, we shall feel that we are more than compensated for this labor of love, and interesting study.

DISPENSARIES OF PHILADELPHIA.

Title.	Location.	Age.	Department and Hours.	Charges.	Patients Treated.			Average Number of Patients.	Number of Prescriptions.	Remarks.	Names of Physicians.
					Adults.	Children.	Special Diseases.				
Berean (Presby.) Dispensary.	1912 S. College ave.	11 months	Medical and surgical, daily 2 to 4 P. M. Dental, daily 4.30 to 6.60 P. M.	Fee 25 cents a visit, if able to pay.	Yes	Yes		30 to 60 per month.	60 to 100 per month.	Will reopen about November 1st.	Caroline V. Anderson, M.D.; Hannah T. Crosdale, M.D
Homœopathic Dispensary.	2055 Kressler street.	5½ years.	Open Monday, Wednesday and Friday 1 to 3 P. M.	10 cts. each prescription.	All	All		300 per month.	700 per month.		F. M. Earle, M.D. (Homœopathic).
Homœopathic Dispensary.	1336¼ N. Twenty-first street.	8 years.	All diseases 10.30 to 12 M. daily.	Free.	Yes	Yes		200 per month.	Medicine furnished.		E.W. Sackett, M.D.(Homœopathic).
Charity Hospital Dispensary.	1832 Hamilton street.		Diseases of women and children, medical and surgical. Clinics daily 12 to 1.30 P. M.	Free.	Yes	Yes		325 per month (new.)	350 per month.	Expect to enlarge the hospital in the near future.	Chief Resident: J. D. Moore, M.D. Assistant: W. J. Pennock, M.D. Diseases of Women and Children: Drs. Jos. Lopez, Justin Sinexon. Medical: Drs. Abner Chase, A. M. Seymour, Thomas Ely. Surgeons: Drs. W. Batt, W. K. Shea, Geo. Stubbs. Consultants: Drs. H. Evans, W. H. Pancoast, H. St. Clair Ash.
Northern Dispensary of Phila.	608 Fairmount ave.	75 years.	Medical diseases of eye. Surgical diseases of throat, nose and ear. Lying-in diseases of women. Diseases of skin. Hours 8 A. M. to 1 P. M.; 3 P. M. to 6 P. M.	No charge.				19,684 (yearly.)	32,600 (yearly)		Resident Physician: Robert J. Hess, M.D. Attending Physicians and Surgeons: Drs. J. O. Nock, Edward Matlack, A. M. Seymour, W. S. Shimer, W. Thomas Miller, Geo. T. R. Kressler, T. Sebring Slifer, W. H. Noble, Henry E. Applebach, W. E. Parke. L. Brewer Hall, M.D., Eye; H. W. Stelwagon, M.D., Skin; Chas. P Noble, M.D., Diseases of Women; E. Baldwin Gleason, M.D., Throat Nose and Ear. Consulting Physicians: Drs. Wm. Pepper, H. W. Rihl, W. M. Welsh, Owen Osler, Levi Curtis, J. M. Da Costa. Consulting Surgeons: Drs. D. Hayes Agnew, E. B. Shapleigh, H Seaman, James Collins, E. W. Holmes, Jos. S. Gibb. Consulting Physicians to Lying-in Department: Drs. Theophilus Parvin, W. B. Atkinson, William Goodell, D. Longaker. District Physicians: Drs. Slifer, Kressler, Matlack, Seymour, Miller, Nock. Applebach, Shimer, Noble, Parke.
Pennsylvania Eye Ear and Throat.	Thirteenth and Chestnut streets.	4 years.	Daily except Sunday, 11 A. M. to 12 M.; 6 to 7 P. M.	According to ability to pay.		100 daily.	Ear eye and throat.				Surgeon in Chief: George Strawbridge, M.D.; Drs. Chas. Shaffner, L. J. Lautenbach, J. Heilman, W. W. Moorehead, Alex. Brown, L. J. Hammond.

Title.	Location.	Age.	Department and Hours.	Charges.	Patients Treated.			Average Number of Patients.	Number of Prescriptions.	Remarks.	Names of Physicians.
					Adults.	Children.	Special Diseases.				
Philadelphia Dispensary for the Medical Relief of the Poor.	127 South Fifth street	105 years.	Obstetrics and Diseases of Women, 2.30 to 4 and 5.30 to 6.30 P. M. Other cases, 9 A. M. to 5 P. M.	None.	All.	All.		24,479 last year.	50,745		District Physicians: T. M. Tyson, M.D., Southwestern District; A. N. Jacob, M.D., Northeastern District; J. H. Adams, M.D., South Middle District; Wm. M. Capp, M.D., North Middle District; A. C. Wood, M.D., Southeastern District; Edward Kirk, M.D., Northeastern District. Resident Physician: E. S. Vanderslice, M.D.; Assistant: Horace S. Lewars, M.D. Obstetrical Physician: Joseph Price, M.D., Consulting Physicians and Surgeons: Drs. D. Hayes Agnew, R. A. Y. Penrose, Wm. G. Porter, H. C. Wood.
Southwark Dispensary and Sick Diet Kitchen.	1719 South Ninth street	19 years.	Dispensary open daily, 12 M. to 2 P. M. Kitchen open daily, 11 A. M. to 12 M.	None.	All.	All.		9,088	18,176		Medical Director: John S. Ward, M.D. Physician in Charge: Samuel E. Walker, M.D.; Assistant; Richard Walker, M.D. Consulting Physicians: Surgeon, Louis W. Steinbach, M.D.; Diseases of Women, Wm. B. Atkinson, M.D.; Diseases of Throat and Lungs, J. Solis-Cohen, M.D.; Surgery, J. M. Barton, M.D.; Dermatol'y, J.V.Shoemaker,M.D.
Southern Dispensary.	318 Bainbridge street.	75 years.	Open daily, except Sunday, for treatment of all diseases, 9 to 12 A. M., and 2 to 4 P.M.	Free.	All.	All.		583 per month (new).	1,000 per month.		Resident Physician: William Notson, M.D.
Southwestern Dispensary.	Twenty-second and Bainbridge.		Medical, 10.30 A. M. Surgical, 10.30 A. M Diseases of women and children, Wednesday and Friday at 1 P. M. Throat, nose and ear, Tuesday, Thursday and Saturday at 1 P. M. Diseases of Eye, Tuesday, Thursday and Saturday, at 12 M.	Free.	Yes	Yes		4,398.			General Medicine: A. E. Roussel, M.D. Surgical: A. Hewson, M D. Gynecological: F. H. Elder, M.D. Diseases of Eye: G. H. Bell, M.D. Diseases of Throat, Ear and Nose, G. H. Macuen, M.D. Consulting Physicians: John H. Brinton, M. D., Wm. Thompson, M.D., G. S. Wilson, M.D., C. Turnbull, M.D., Theophilus Parvin, M.D.
West Philadelphia Dispensary.	4040 Market street.	6 years.	Eye, ear, nose and throat, daily except Sunday, 11 A. M., 1 P. M.	Medicine not furnished, charges are optional.	Yes	Yes		(about) 150 per month.	(about) 200 per month.		T. A. Downes, M.D.
Philadelphia Medical Mission.	519 S. Sixth street.	10 years.	Medical and surgical.	A nominal charge if patient can pay.		All		1,619 House visits 503	2,565	Object is to give religious instruction and to rescue fallen women, combined with medical service.	A. B. Kirkpatrick, M.D.
Rush Hospital Dispensary.	Twenty-second and Pine.	3 months	Throat department, daily, at 12 M. Diseases of chest at 2 P. M.	Free services, small charge for medicine.			Diseases of throat and chest only.	75 per month.			Lawrence Flick, M. D., Charles Dulles, M.D., J. P. Crozer Griffith, M.D.
Penn Dispensary.	1141 S. Twentieth street.	6 years.	Obstetrics and Gynæcology, 12 A. M. to 1 P. M., daily; medical and surgical, 2 to 3 P. M., daily; eye, 3 to 4 P. M., daily.	Small charge made for medicine.	All	All		300 per month.	500 per month.	Cases of confinement attended at homes free of charge. Cases treated on Sunday 2 to 3 P. M.	T. Ridgway Barker, M. D.; Thomas T. Bland, M. D.
Dispensary for Women.	1630 Cherry street.		Monday, Wednesday and Friday, 1 to 3 P. M.		Yes	No	Diseases of women treated.			Cases treated by electricity.	Wm. H. Walling, M. D.; G. Betton Massey, M. D.
Homœopathic Dispensary.	502 N. Tenth street.		8 to 10 A. M.; 2 to 4 and 6 to 9 P. M.	25 cents for medicine. Advice free.	All	All					F. D. Rothermel (Homœopathic).
Fairmount Dispensary.	413 N. Twenty-third street.		Daily, except Sunday. Surgical, 12 to 1 P.M.; medical, 6 to 7 P. M.; eye, Monday, Thursday and Saturday 7.30 to 8.30 P.M.								

The Polyclinic.

MEDICO-CHIRURGICAL HOSPITAL.

IT is sometimes difficult to distinguish between a functional and organic heart murmur. An organic murmur is increased by anything that increases the force of the muscular contraction of the heart. If you make the patient walk about the room, or up and down stairs, so as to throw a little additional work on the heart, then the murmur becomes more distinct. Another distinguishing feature is that organic murmurs are more harsh than functional murmurs.

The seat of an anæmic blowing is to the left of the sternum, about the third costal cartilage, or over the area of the pulmonary artery. It is a systolic murmur.

In cases of marked anæmia, there is a purring, blowing murmur in the jugular vein, which is called the *bruit de diable*. It is a purring sound, like that made by a cat. Its exact cause is not known, but it may be due to some alteration of the relation existing between the blood and the containing vessel.

—*Woodbury.*

The amount of disturbance of health in trichiniasis depends altogether on the number and activity of the trichinæ absorbed—that is, it depends on the number of parasites introduced into the stomach during digestion and the number escaping from the alimentary canal into the tissues.

The parasites, in trichiniasis, are found particularly near the tendinous insertions of the muscles. In a case of acute infection, if a particularly sore spot be selected near a tendinous insertion, and a piece of muscle taken and placed under the microscope, the parasites may be easily seen. A heart murmur may be caused by the invasion and weakening of its walls by this parasite. —*Woodbury.*

Fœtal teeth are always incisors. The children in whom they are found are generally strumous or cachectic. They are supernumerary teeth, usually falling out, and the process of dentition afterwards goes on in a normal manner.

Late teeth generally are found in bottle-fed babies; those who have been kept at the breast for awhile and then placed upon the bottle.—*Hollopeter.*

℞.—Oleate of zinc..... 3j.
Salicylic acid..... gr. x.
Starch..... 3vi.

This makes an elegant toilet or dusting powder for use in irritation about a child's face.—*Hollopeter.*

One of the reflex disturbances connected with dentition is convulsions. Convulsions is a condition which generally starts in with slight tingling either in one hand or both, or in the face. It is a pleasing thought to the mother, on seeing the twitching of the little mouth, to think that baby is talking with the angels. Very poetical, but the cause is altogether unpoetical—a disturbance of the bowels. Finally, the child has a tremor, the muscles work more and more violently, until a terrific convulsion, terrible to the mother, confronts her. The child will throw itself back, its muscles becoming rigid. The convulsions are so violent that the face becomes black, and blood may even ooze from the mouth. After awhile the convulsions subside, the natural color of the face is restored, and the child falls into a sleep, perhaps to repeat the convulsion in half an hour or an hour.

The growing child, during the eruption of the temporary teeth, is in an exceedingly nervous condition. Add to that the slightest particle of undigested food, and you have a cause for convulsions. I have been repeatedly confronted with these forms of reflex disturbances, and have generally found them due to some irritant in the intestinal canal. However, while we speak of this condition as a form of indigestion, the convulsions would not have been manifested if there had not been irritation of the dental nerves.

When summoned to a case of convulsions, it simply means that you must have your wits about you. There is no position in which you will require more presence of mind than in the treatment of convulsions of children. The whole household is in confusion; everybody running after something or getting somebody; the child left by itself; the wretched mother crying in the corner; and you are expected to bring order out of this chaos.

The first thing for you to do, if the child is in convulsions, is to chloroform it. Chloroforming is a perfectly safe method of quieting it down, and by so doing you make a powerful effect upon the household.

You are supposed to have a child about one year old, commencing to erupt its first set of molar or lateral incisor teeth. If you find it in this condition, and the convulsions continue, use the following:

℞.—Sodii bromidi..... 3ss.
Chloral..... gr. xij.
Aquæ menthæ..... f3j.

Give 3ss of this at a dose, and, if the child is not able to swallow, inject into the rectum a drachm of the above. Give this dose every fifteen or thirty minutes, until you have assured yourself that the child is thoroughly quieted down. Of course, if you suspect a gastro-intestinal disturbance, give a glycerine enema; but, above all, push the chloral and bromide in the proportions I have given. After that, place the child in a quiet, dark room, and withdraw food entirely for three or four hours; and if the child manifests any fever, order a hot mustard foot-bath and cool cloths to the head, and let it sleep off its chloral.—*Hollopeter.*

METHYLENE BLUE IN MALARIA—As it has been shown that both in dried and fresh blood preparations the malaria plasmodia can be perfectly colored by methylene blue, and as in both warm and cold-blooded animals it colors the red blood corpuscles, Guttman and Ehrlich hit upon the idea of trying it therapeutically in malaria. Their expectations have been realized, and the investigators have shown that methylene blue exerts a decided action on malaria poison. The febrile attacks ceased the first day of its use, and in eight days at the latest the plasmodia disappeared from the blood. The form of drug employed was the chemically pure prepared by Meister, Lucius, and Bruening. It was given in doses of 0.1 grm. in capsules five times a day in the fever free interval. In the first case it was given every three hours, in two cases of quotidian the five doses were given at hourly intervals. The remedy must be continued in daily doses of 0.5 grm. for at least eight days after the cessation of the fever. No disagreeable by-effects were observed, except slight bladder irritation. The daily excretion of urine was also observed to be increased. The urine was colored intensely blue. The intestinal evacuations contained the methylene blue in a reduced form, but they became blue on exposure. It was not ascertained whether the drug would prevent relapses.—*Med. Press.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.
A. E. ROUSSEL, M.D., French Exchanges.
W. F. HUTCHINSON, M.D., Italian and Spanish Exchanges.
HERMAN MARCUS, M.D., German Exchanges.
GEO. WHARTON McMULLIN, Manager Advertising Department.

THE TIMES AND REGISTER,
FORMED BY UNITING THE
PHILADELPHIA MEDICAL TIMES,
THE MEDICAL REGISTER,
THE POLYCLINIC,
THE AMERICAN MEDICAL DIGEST,
PUBLISHED UNDER THE AUSPICES OF THE
AMERICAN MEDICAL PRESS ASSOCIATION.

Published by the MEDICAL PRESS Co., Limited.

Address all communications in regard to Editorial and Subscription Business, to 1725 Arch Street, Philadelphia.

Address all communications in regard to Advertising, to 218 E. 34th Street, New York.

New York and Philadelphia, November 21, 1891.

BICHLORIDE OF GOLD TREATMENT.

A CHAIN of coincident circumstances has given this so-called specific a prominence that was never anticipated, and which the author seems unprepared to meet except on the lowest and coarsest levels. The very unusual medical agitation of the subject of alcohol and the inebriate during the past year has turned the public mind in this direction. This has added intensity to the moral and political temperance forces in the field, and has roused a feeling of alarm at the impending danger from this source. The victims of alcohol and opium, and their friends, have seized the idea of disease and curability by remedies, and are looking with credulous expectancy for any means which promise relief. The pledge, prayer and asylums are ignored in the hope of some new discovery that will promise the most extraordinary results, with the least effort in the briefest time. These are some of the favoring conditions for this new specific. The bichloride has been on the market for years, and analyses have always failed to find any gold in it, but where it was given as an opium antidote large quantities of morphine were present. Recently hypodermic injections of narcotics have been given as bichloride of gold for the chemical restraint they exercised over the drink impulse. After a few injections the victim of long standing is astonished that all taste and desire for spirits has disappeared. The extravagant promises for the remedy are sustained by this experience, and the conclusion is accepted that the desire for spirits is destroyed and the patient is fully cured. This belief is encouraged and grows daily until it becomes a propelling force that naturally carries the victim beyond the chemical restraint of the narcotics which is given him. Out of this comes the morbid confidence of perfect cure, and the strange delirium to pose as an illustration of the effects of this remedy and advertise it at all times and occasions.

Mystery, and a positive aversion for spirits, in a brief time, and extravagant claims were the elements which has suddenly brought out the bichloride. Everywhere the statement of persons who boasted mildly of radical cure were taken as evidence, and the press and clergy caught the infection and helped on the interest by long sermons and editorials. The author of this remedy suddenly realized that a harvest of real gold was at hand, and, with a singular stupidity, claimed that the remedy was a new discovery in science, and that it would always destroy the drink impulse. Then, with greater stupidity, he attempted an explanation of the physiology of the remedy. Thus the mystery and interest, which might have been kept up, exploded by the daring assumption of its author. The bichloride is already a thing of the past, and is only one of many specifics that are pressing for recognition, and aiming to meet the credulous demand of the public.

In these quack efforts and remedies a certain number of cases get well, and ascribe their cure to the remedy. In this bichloride humbug, chemical restraint from narcotics and strong faith will, in some cases, hold the case long enough for Nature to bring on restoration. In a certain number of cases the disease had reached its natural limits, and the drink symptom would die out from any cause. The bichloride or even powdered brick dust would produce the same results. The same thing is seen in temperance and revival meetings, where inebriates, who have signed the pledge and been converted repeatedly, only to relapse again, finally use the same means and recover. The drink impulse has died away, and some physical change has taken place in the brain. The bichloride merely represents the demand of a large credulous public for other than moral remedies, to relieve this wide spread disorder. The chemical restraint which it gives the victim, under the impression of permanent breaking up of the drink impulse, is fatal in most cases.

The delirious confidence and faith has no real support, and must react, plunging the victim into greater depths of paralysis and degeneration. The bichloride will recruit a large number for all the various asylums and hospitals, and, like the saloon itself, it will grow on the ignorant credulity of its patrons. This is the age of empiricism in the study of alcohol and inebriety. The bichloride will be followed by other specific remedies which promise great results. Already several rivals have started, claiming larger number of cures and more certain restoration. Obviously the medical man has a grave duty to teach and direct the public mind in this matter. The drink problem and the inebriate are questions requiring scientific study and scientific means and remedies for their solution and cure. There are no miracles known in the realm of therapeutics; there are no drugs or combination of drugs whose values are enhanced by mystery. The degeneration from alcohol is only reached by the use of means along the line of scientific research.

T. D. CROTHERS.

ABADIE treats diphtheritic conjunctivitis by instillations of lemon juice, and recommends the same remedy when sloughing has followed the use of nitrate of silver. The applications are repeated in from five to eight hours.

Annotations.

THE material upon diphtheria will be held until next week, as we have found that by so doing we will be enabled to present our readers a much more extensive collection of views on the subject.

DR. S. R. KNIGHT, Superintendent for thirty-two years of the Episcopal Hospital, of Philadelphia, died, on November 14, of Bright's disease. Dr. Knight was immensely popular with his professional brethren. No one could tell a story better, or listen to one with more enjoyment. His administration of the Episcopal Hospital made it for many years the model hospital of this city.

DR. J. D. RIHL died at his residence in Philadelphia, November 13, at the age of seventy years. Dr. Rihl had for many years been one of the most successful vaccine physicians of the city; one of those who had won the entire confidence of the community, and conferred greater benefits upon it than any dozen of the more pretentious specialists.

Letter to the Editor.

VAGINAL DOUCHE APPARATUS.

I HAVE read with interest an article in THE TIMES AND REGISTER, of November 7, concerning the treatment of vaginitis, as well as your editorial on improved vaginal douches. The theory that the best position for vaginal injections is the recumbent one may be correct; but in general practice, even where patients are able to have the services of an attendant and the use of the most elaborate appliances, my own experience teaches me that the use of the bidet, or its substitute in some form or other, is, in the long run, most convenient. The large bulb syringe made by Tieman & Co. or the continuous flow syringe made by Parker, Stearns & Sutton, and known as the "Alpha," if not more convenient are certainly more efficacious as a means of cure. The dry method of treatment referred to I seldom make use of. The hot douche, either plain or medicated, is almost always indicated. Generally speaking, the syringes we find in use are too small, and the supply of water inadequate to properly cleanse the vaginal walls. It is useless to recommend the hot douche when only a small stream of water can possibly reach the diseased tissues. The bidet can be found at almost all of the furniture stores in our cities and large towns. A temporary affair can be made at reasonal price by almost any carpenter, in a short time.

I seldom use a tampon after a vaginal douche, and, as I usually direct that the injections be employed just before going to bed, it would not be convenient to employ tampons in general practice. Instead of the tampon I use the large vaginal glycoboron suppositories made by Otis Clapp & Co, of Boston. These contain a drachm of boro-glyceride in gelatin, and can be readily introduced by the patient after taking the vaginal douche. These melt slowly during the night and thoroughly cover the diseased walls of the vagina, allaying irritation, and effecting a cure. I never employ nitrate of silver, permanganate of potash, tannin, oak bark, or any of the common preparations recommended. The sulpho-carbolate of zinc, which I recommended as early as 1874, I find inferior to the glycoboron suppositories already mentioned.

Whenever it is desirable to employ a tampon, I prefer to use tanned jute, or refined oakum. I have used many different preparations, wool, cotton, etc., but do not find them equal to the jute.

Where vaginal inflammation is dependent upon malposition of the womb I make pessaries of tanned jute. For the past eleven years I have used no other form of pessaries, and find better results than I have ever been able to obtain with any other.

The Alpha syringe is most highly to be recommended on account of its continuous flow, and the abundance of water which it can afford.

The use of vaginal injections is so important in the treatment of disease that it is well worth practitioners' care and attention to insist upon some instrument capable of affording a copious water supply, otherwise one treatment would scarcely meet with success.

W. THORNTON PARKER, M.D.

MANCHESTER-BY-THE-SEA, MASS., NOVEMBER 10, 1891.

Book Notices.

ALL AROUND THE YEAR, 1892. Entirely new design in colors. By J. PAULINE SUNTER. Printed on heavy cardboard, gilt edges, with chain, tassels, and ring. Size 4¼ by 5½ inches. Boxed. Price, 50 cents.

This most charming calendar is composed of heavy, gilt-edged cards, tastily tied with white silk cord, and a delicate, silvered chain attached, by which they may be hung on the wall or elsewhere, and are so arranged on rings that they may be turned over as each month shall be needed for reference.

ESSENTIALS OF NERVOUS DISEASES AND INSANITY; Their Symptoms and Treatment. A manual for students and practitioners, By JOHN C. SHAW, M.D. Forty-eight original illustrations. Philadelphia, W. B. Saunders. 1892. Cloth, pp. 194, 12 mo. Price, $1.00.

We hope that no student will buy this book; but we recommend it highly to the practitioner who has not purchased a work on nervous diseases for ten years. He will find in it so much that he does not know that he will be driven perforce to buy Gowers' or Ross', and thus great good will be accomplished. Furthermore, we can say that Dr. Shaw's primer is excellent, as far as it goes; and the illustrations are well executed and very interesting.

A MANUAL OF HYPODERMATIC MEDICATION; The Treatment of Diseases by the Hypodermatic or Subcutaneous Method. By ROBERTS BARTHOLOW, A.M., M.D., LL.D., etc. Fifth edition. Revised and enlarged. Philadelphia, J. B. Lippincott Company. 1891. Cloth, 8 vo., pp. 540. Price, $3.00.

The author tells us that in the present edition this popular work has been recast, many articles rewritten, and other changes made; altogether resulting in an addition of about two hundred pages, besides an increase in the size of the page. These additions have been necessitated by the growing importance of the hypodermatic method of medication, consequent upon the development of the germ theory. As the book now appears it is a most excellent manual of hypodermatic medication. The new additions to the pharmacopœia are discussed with that clearness of statement that characterizes Bartholow, but with more conservatism than is shown in his earlier works. One will search in vain in the present book for any evidences of impaired mental power. On the contrary, it is written in Bartholow's best vein. Noth-

ing could be better said than his remarks on the Brown-Séquard testicular fluid; that unfortunate bantling, smothered at its birth by the ridiculous use of it made by the public press; always ready to sacrifice all else to the demand for a new sensation.

The Medical Digest.

ARISTOL has been injected into scrofulous abscesses with good results. Five minims of a 1 per cent. solution, in sweet almond oil, was the dose.

BURTON-FANNING says that a child three days old was seized simultaneously with jaundice and hematuria, both of which passed off on the sixth day, under the influence of mercury.

FOR VOMITING PREGNANCY.—

℞.—Mentholis..... gr. xv.
Alcohol..... ℥v.
Aquæ..... ℥v.
M.—Sig. ℥j every hour.

FOR GONORRHŒA.—

℞.—Bismuth subnit..... ℥vj.
Acaciæ pulv..... ℥ij.
Morphinæ sulph..... gr. ij.
Aquæ..... ℥vj.
M.—Sig. Inject 2 drachms thrice daily.

FOR FURUNCLES.—

℞.—Acid. salicylici..... ℥ij.
Emplast. saponis..... ℥ij.
Emplast. diachylon..... ℥j.
M.—Sig. For local application.

—Wile, *The Prescription.*

FOR diphtheria, Loeffler recommends gargling or painting with 1 to 1,000 bichloride solution, 3 per cent. carbolic acid in 30 per cent. alcohol, turpentine oil and alcohol in equal parts, with 2 per cent. carbolic acid; all to be applied every one or two hours.

RHEUMATISM.—In the treatment of this malady in many of its varieties, I have found no prescription equal to the following:

℞.—Bicarbonate potassium,
Salicylic acid,
Iodide of potassium.....āā ℥ij.
Tinct. colchicum seed..... ℥iij.
Syrup orange peel..... ℥iij.
Water..... ℥v.
M.—Shake well.
Sig. A tablespoonful every two or three hours until necessary to diminish the dose and its frequency.

—J. B. Johnson, *Southern Clinic.*

BROMIDE OF ETHYL.—Speaking from my limited experiences, I feel myself encouraged to use this anæsthetic.

Its advantages are: speedy action, absence of stage of excitement, ready dissipation, no after effects, absence of danger, circulation and respiration not being adversely affected if given in the limited quantities recommended by Haffter; ease of application without assistance in any position and without preparation of the patient; pleasantness of the vapors.

As disadvantages should be mentioned its easy decomposition and its evaporation even in the primary bottles, and the price of the drug 35 to 40 cents an ounce.—Haeberlin, *Lancet Clinic.*

MAUREL claims as an axiom that no animal can survive the death of its leucocytes; and as those of man die in two hours at a temperature of 100.4° to 111.2° F., and in ten minutes at 111.2° to 113° F., the danger of high temperature is easily explained. But there is an evident fallacy here, as patients do survive a temperature of over 105°, continued for hours, in several fevers, such as measles.

FOR the removal of glass beads from the ear, it has been newly recommended to melt alum in a spoon over a flame, dip in the molten mass the end of a thin rod of wood, separated into its component fibers, and then to introduce the rod into the ear and lightly press against the foreign body. After half to one minute the now adherent bead can be withdrawn. The meatus is protected from injury by a funnel of stiff paper.—*Provincial Med. Jour.*

M. DE BAVAY has made some interesting studies on the saccharomyces and their relation to the typhoid bacillus. He showed that this bacillus grew best in broth, while cows' milk was not a very good culture medium, unless previously peptonized. Yeast interfered with the growth of the typhoid bacillus, and it was much more virulent when cultivated in an alkaline than in an acid medium. As yeast passes through the intestines unchanged it develops acid; hence if the food given be saturated with this harmless substance, the food and the intestines are alike acidulated and rendered unfit for the growth of typhoid bacilli.—*Brit. Med. Jour.*

URTICARIA.—There has been during the past season almost an epidemic of this excessively annoying eruption, confined to no age and no condition of life. The rash is likely to cover the whole body, and the itching is intolerable. The cause is obscure; arising, possibly, from a too free use of fruit and with certain atmospheric influences. The usual remedies, even when carefully selected, often fail in producing relief. The first indications is to produce free action of the liver and portal circulation. The itching is sometimes relieved by a wash of boracic acid, salt or cider brandy. Internally, half teaspoon doses of sulphurous acid well diluted with water, or iodide of potassium have sometimes relieved when other remedy failed.—*N. Y. Med. Times.*

ANTISEPTICS IN SURGERY.—A decided reaction has set in against the antiseptic douching of surgical wounds. One of the most emphatic protestations comes from Bergner, who, in an article on resection for the remedying of false joints in the limbs of children, ascribes his want of success to the use of chemical antiseptics.

He operated on five children whose ages varied from six months to three years. The method of operation adopted was that followed by those who delight in antiseptics, or Listerism. After exposing the false joint the fragments were resected and united by suture. An antiseptic dressing was applied, and the limb was put up in a plaster of Paris bandage. Every one of the operations failed. In the case of one of the children the operation was three times repeated. These unfavorable results he ascribes to the action of the chemicals on the bone tissue preventing the formation of callus. In a recent issue we have pointed out a still more serious drawback to the phenol antiseptics, to wit, the causation of osteomyelitis.

—*Med. Press.*

ANTIKAMNIA, as far as we can learn, has not the antipyretic powers as the others mentioned, but as an analgesic and anodyne has proven itself a valuable remedy. It produces no cerebral or cardiac weakness, and causes no gastric disturbance. It maintains the first place as a remedy in acute rheumatism, and produces less of the disagreeable after-effects than the other coal-tar preparations. It does not arrest the intestinal secretions, and, like the above-mentioned remedies, is antiseptic.

—Carver, *Kas. Med. Catalogue.*

TREATMENT OF MALARIAL HEMATURIA.—1. Give hyposulphite of sodium in drachm doses every two hours until patient is freely purged, and then give in smaller doses until the entire body is saturated with it.

2. Give morphine and atrophine hypodermically to quiet the stomach, and to these add a blister over the epigastrium if necessary.

3. Give an abundance of water to work out the coagula that must necessarily accumulate in the urinary tubules after a hemorrhage. Hot water or hot lemonade is frequently better borne by the stomach than cold. Cupping over loins is also to be recommended.

4. The diet should be unstimulating. Fresh buttermilk is usually well borne and is also a wild diuretic, and I have come to rely on it as an article of food in this as in many other diseases.

5. The patient should, if possible, be kept strictly in a recumbent posture. My experience with quinine in this malady forces me to believe it a poison.

—J. W. Meek, *N. O. M. and S. Journal.*

VAGINAL EXAMINATIONS DURING LABOR.—Veit is strongly of opinion that they are sources of danger, and would banish them except under special circumstances. In spite of all antiseptic precautions, puerperal fever still crops up here and there, and he casts the blame, therefore, upon vaginal examinations during labor. Many distinguished obstetricians have pronounced in favor of omitting the usual internal examinations. The late Prof. Litzmann would only allow his students to make external examinations. The writings of Credé and Hegar tend to the same end, that internal examinations are best omitted. Leopold also advocates the same opinions and acts correspondingly; his observations have shown that the mortality may be reduced to a minimum in childbirth if internal examinations are not made. Veit is also of opinion that in normal cases, and these form the vast majority, internal examinations may be well replaced by careful external ones. In order to dispense with the internal examination, the external one must necessarily be made with the greatest attention, and he claims that it may be taught and practised with greater exactitude than has hitherto been the case. In his opinion, an internal examination should be made in the period of dilatation only in case of general disturbance (eclampsia, etc.), or improper presentation, and in the period of expulsion only in case of general disturbance, local abnormality, or improper position of the fœtus. Just as little, he says, as a surgeon would pass a clean sound over a disinfected wound, and thus under the most favorable conditions without any justifiable cause, just so little should the obstetrician introduce his finger into the genital canal without adequate necessity. We do not pass the speculum or the sound into every patient, or chloroform in all cases. Why should we pass the finger into the vagina in all cases, whether there be necessity or not? Nothing but distinct indications should lead us to vaginal examinations in child-birth. The teaching may seem strange, but we may live to see the day when routine reiterated vaginal examination in labor shall be abolished.

—*Med. Press and Circular.*

GERMAN NOTES.

HERMAN D. MARCUS, M.D.

SCABIES.—Prof. Kaposi recommends following salve (to be used once only).

℞.—Sulph. flor.,
Ol. fagi.....āā ʒv.
Saponis virid,
Axung. porci.....āā ʒx
Cretæ alb. pulv..... ʒj gr. xv.

The patient is then rolled in a woolen cover, not to excite perspiration, but because the wool absorbs the salve slowly, and the body will remain covered by the salve longer than if coming in contact with linen. The next day the body is powdered with amylum. No bath should be taken until the skin exfoliates.

—*Wiener Med. Zeitung*, April 5, 1890.

NEW MEDICINAL SOAPS.—In the different forms of pruritus a 5 per cent. superfatted *menthol soap* has been found of remarkable therapeutic value. It is used by soaping the body well while taking a bath, (lukewarm, morning and evening), or in pruritus localis the part affected should be washed with the soap. In obstinate cases it is advisable to leave the soap to dry on the body till the next bath (after twelve hours) will wash it off.

In pruritus genitalis, or analis, the parts should be washed three times daily with the soap.

Five per cent. Salol Soap is recommended in a number of obstinate skin diseases. Eichhoff has used the soap in eczema parasiticum and psoriasis vulgaris. He also recommends it in pityriasis versicolor, herpes tonsurans, favus, impetigo contagiosa, eczema marginatum.

Aristol Soap (aristol, 2 per cent.; soap, 98 per cent.) is of great value in superficial skin diseases, psoriasis, parasitic eczema, and other fungus diseases.

—*Œrtzl. Central Anzeiger f. Œsterreich.*

DIURETIN (Theobromin — Natro - Salicylicum. Knoll). Diuretin has been used by Prof. Drasche in the Vienna Allgemeine Krankenhaus in 40 cases. The daily dose was 75 grains, and even as high as 2½ drachms were used in some cases. Syr. cort. aurant. was used as corrigent. Diuretin was used mostly in cardiac dropsy (vitium cordis, arterio-sclerosis, cor adiposum), acute Bright's disease, chronic nephritis, pleuritis, tuberculosis membranæ seros. and cirrhosis hepatis.

In cardiac dropsy diuretin has proven to be an excellent, quick acting diuretic. Sometimes the dropsy did not appear to be diminished in the first few days, still the dangerous symptoms disappeared, and finally the dropsical condition was so much improved that the patients were able to attend to their business in very short time.

Somnolence, dizziness, headache, and profuse diarrhœa were sometimes observed after using this agent.

In acute nephritis, diuretin showed no action whatever; in the chronic form, especially contracted kidney, it proved a most excellent remedy. Equal good results were observed in cirrhosis hepatis, none at all in pleuritis.

Dr. Schmieden (*Centralblatt f. Klin. Med.*), has used diuretin ever since the summer of 1890 (at the Staedtische Krankenhaus am Urbam in Berlin), on

31 patients. All patients with one exception suffered more or less of dropsy, which appeared as œdema ascitis, hydrothorax, or other combination of these formed. The results were as follows:

In pure cirrhosis of the liver or tuberculous peritonitis diuretin failed entirely.

In chronic nephritis it proved unreliable; in some cases it was of no benefit whatever, others improved slightly.

In the majority of heart diseases diuretin proved an excellent diuretic. Heart diseases complicated with chronic nephritis showed only mediocre results, while pure heart diseases were decidedly improved; Schmieden has also noticed headache, profuse diarrhœa, and vomiting accompanying the use of diuretin.

Dr. Kress (*Muenchner Med. Wochenschr.*), reports 20 patients treated by him (at the City Hospital in Nuernberg) with diuretin—7 suffered from nephritis, 8 heart diseases, 2 pleural exudates, 2 diseases of the liver, and 1 tuberculosis pulmonalis in the dropsical stage. Kress came to following conclusions:

1. Diuretin is a true and strong diuretic.
2. Its action is direct upon the parenchyma of the kidneys.
3. It shows its diuretic action to advantage in acute and chronic diseases of the heart and kidneys.
4. It can be given continually and in large doses (2 drachms daily) without showing dangerous symptoms.

ERYSIPELAS AND EMPYEMA.—Dr. Spaeth (Eslingen) observed three cases which apparently had some connection to each other. The first case was that of facial erysipelas, followed by empyema; the second, a pure empyema without complications; the third, empyema followed by erysipelas. Spaeth thinks that all three cases were due to the same cause, meaning that one and the same micro-organism caused all three diseases. (An examination of the pus with the microscope should have settled this question.—*Marcus.*)

—*Wuertemb. Med. Correspondenz Bl.*

ABORTIVE TREATMENT OF SMALL-POX.—Dr. Gustave de Paola, in his article in the *Archiva Italiana di Pediatria*, reports two cases of true small-pox which were aborted through the medium of vaccination. He speaks very highly of the practical value of such treatment, and puts the most favorable period for vaccination in such cases during the beginning of the eruption; during the suppurative stage such treatment would bring less favorable results.

[His experience shows the truth of the opinion that vaccination during an attack of small-pox is positively harmless and cannot have any evil consequences.

—H. D. M.]

VARICELLA AND VARIOLA.—Dr. Hochsinger (Vienna) reports a case of varicella in a boy ten years old. An older brother (thirteen years) and the mother fell sick twelve days after the first boy showed signs of sickness. The older brother became also varicellous, while the mother fell ill with a bad attack of variola. Hochsinger says that this proves that varicella and variola are identical. He is positive that the mother could not have been infected any other way than through the son. All these were vaccinated—the boys twice, the mother three times—and always with success.—*Muench. Med. Wochenschrift.*

[Could there not have been a mistaken diagnosis, and the disease been, instead of varicella, varioloid?

—H. D. M.]

CYSTITIS.—

℞.—Aq. camphorici. ..... gr. 8.0=ʒij.
Glycerini ..... " 50.0=ʒiss, gr. xxx.
Aquæ dest. ..... " 450.0=ʒxiv.
M.—S. Inject into bladder.

—*Internat. Klin. Rundsch.*

LARYNGEAL ULCERS.—

℞.—Aq. camphorici..... gr. 0.5-3.0=gr. viiss-gr. vl.
Sacch. lactis..... " 25.0=ʒvi, gr. xv.
Cocain. mur..... " 0.1-0.25=gr. iss-gr. iiiss.
M.—S. Dust over ulcers.

—*Ibid.*

CONSTIPATION.—

℞.—Apioli puri cryst..... gr. 1.50=gr. xxiiss.
Ol. ricini ..... " 100.0 =ʒiij, ʒj, gr. xl.
Ol. menth. pip. ..... gtt. 2.0 =gtt. ij.
M.—S. Three to four tablespoonfuls daily.

—*Ibid.*

℞.—Apioli puri cryst..... gr. 0.25=gr. iiiss.
Butyri cacao ..... " 2.0 =gr. iij.
M.—F. suppositor. dent. tal. dos. No. x.
S. Rectal suppositories.

—*Ibid.*

MIGRAINE.—

℞.—Auri monobromati. gr. 0.06- 0.12=gr. j-gr. iss.
Sacchar. lacti..... " 5.0 -10.0 =ʒj, gr. xv-ʒij, gr. xxx.
M.—F. p. div. in dos. No. xx.
S. One powder twice daily.

—*Ibid.*

RHINO-PHARYNGITIS.—

℞.—Alumin. acet. tartar..... gr. 25.0=ʒvi, gr. xv.
Aq. dest..... " 75.0=ʒij, ʒij, gr. vl.
M.—S. One tablespoonful to a quart of water; to draw up the nose.

—*Ibid.*

A NEW ANÆSTHETIC.—Prof. v. Mering has succeeded in discovering a new anæsthetic, which he calls "Pental," on account of its composition (CH_3) $CCHCH_3$. This drug resembles ether, being equally as volatile and inflammatory. The patient is anæsthetized by holding a handkerchief or cloth, on which pental is poured, over the face. Experiments have shown that about 5 drachms are sufficient to produce anæsthesia, which state lasts only for three to four minutes; this drug being, therefore, only adaptable in minor surgical operations. The advantage of this drug lies in the absence of all after-effects. It does not cause vomiting, headache, nor does it interfere with the respiration or heart-beat.

—*Wiener Med. Presse.*

Medical News and Miscellany.

DR. WAUGH is about to remove to Chicago, and desires to dispose of his practice. If any of our readers contemplate a removal to this city, they may find it to their advantage to communicate with him.

SOME of our readers may remember "Technics," and those that do will be glad to know that Charles Everett Warren has come back into the journalistic field. This time it is the "*Bulletin of the Medical News Bureau.* Issued every day. Price, postage free, 25 cents per month; $2.50 per year. Brevitas et veritas." The bright and snappy little notes that characterized "Technics" are seen in the *Bulletin.* We give the new-comer a hearty welcome.

T. V. FITZPATRICK recommends insufflations of aristol for epistaxis.—*Lancet-Clinic.*

INFLUENZA is said to be raging in Prussian Poland, and to have penetrated as far as Berlin.

JAVAL says that Jews frequently suffer from diabetes and eczema, but epilepsy and insanity are rare among them.

BORDIER proposes to inject negro blood into the veins of unacclimated white persons who contemplate a visit to the yellow fever zone.

"DR." C. S. SMITH, of Olympia, Wash., is shown, by papers found at his death, to have been a defaulting county treasurer, from Iowa, named Thompson.

THE proceeds of the Charity Ball, in January, are to be divided between the Maternity Hospital, Gynecean, Southeastern Dispensary and Oral School for Deaf Mutes.

THREE men were arrested in Philadelphia, last Friday, for stealing from doctors' offices. Among their victims were Drs. Quill (?), C. H. Willets, J. J. Jones, Hudders, and H. Willets.

The Prescription is to be enlarged to the size of ordinary medical journals, we are sorry to learn. At present it is one of the few journals that can be handily slipped into the pocket.

THE Secretary of the State Pharmaceutical Board has arrested a druggist at Sixth and Race streets on the charge of selling adulterated drugs. His laudanum was condemned by Prof. Leffmann.

DR. GEORGE H. WATERS committed suicide, at 465 N. Sixth street, Philadelphia, on November 12. Dr. Waters graduated at Jefferson College in 1845, but went over to the homœopathic ranks.

WEIR MITCHELL says it wasn't the water that gave the Congress of American Physicians, at Washington, such a diarrhœa, but an epidemic that was felt along the Atlantic slope as far as Newport.

IN addition to their political disabilities and the mean way in which nature has debarred them from throwing stones, women suffer under the further infliction of being twice as prone to cancer as men.

THE reformed inebriate who wrote the gorgeous advertisement for Keeley in the *North Awerican Review*, a few months ago, fell from grace, after nine months' probation, and died from the effects of a carouse.

TWO of the faculty of the Medical College of Indiana having resigned, brought suit against the corporation. The court has decided that the plaintiff's have an interest in the property of the college, and has appointed a receiver.—*Indiana Med. Jour.*

TWENTY butchers were arraigned before a Philadelphia magistrate last Tuesday, on the charge of selling unwholesome meat. The penalty is a fine not over $100, or six months imprisonment, or both. Bob veal and rotten sausage appear to be the most general offenses.

"DR." IRA RICHMOND is said to be in trouble in Brockton, Mass., on account of criminal malpractice. In his trunk was found a complete conterfeiter's outfit. His name does not appear in the medical directories, and his title of "doctor" may be considered as spurious as his money.

THE erudite editor of the *Medical Record* has been making an exhaustive study of the feminine knee, from which he concludes that the anatomical variation from the masculine type is such as to render its owner unfitted for some masculine pursuits. The patella is smaller in front, and the articular surfaces of the tibia and femur are narrower. This renders it evident that women cannot succeed as doctors.

DR. HELENE DRUSCHKOWITZ, one of the first women in Austria to acquire the title of Ph. D., became suddenly insane a few days ago in Vienna. The unfortunate woman was graduated from the University of Zurich when only twenty years old. She has writted a number of literary, historical and critical essays, and was a woman of considerable learning. She was not physically strong enough, however, to stand the strain of constant work and study

DON'T JOKE WITH THE DRUGGIST.—A prominent retail druggist of Hot Springs was the victim of a practical joke at the hands of a half-dozen friends. The young men claimed a "treat" as a compromise and fell into line at the soda fountains. The druggist saw his chance for revenge and smilingly supplied each one with their special flavor, to which he had added a good, double-dose of syrup of figs. Jamaica ginger, blackberry cordial and other similar remedies were in demand all the following day.
—*Meyer's Druggist.*

LAST Thursday was donation day for the Polyclinic Hospital, and also for the Germantown Hospital. The value of these donation days is greatly weakened by their number; each city hospital having one or two annually. Great benefit would result if the hospitals would combine on a hospital Saturday and Sunday, as is done in London and in New York. It would be better to appeal to the benevolence of the public once only, and ask it to make that appeal effectual by liberal contributions. As it is, people are actually afraid to give to a single charity, because they are likely to be besieged by the agents of a dozen others. By making an annual appeal, and by making it general, in the name of "sweet charity," and not of any single institution, many would feel free to contribute liberally, and all would be alike benefited.

A LARGE FEE.—The largest fee I ever got, writes Dr. Parker, in the *Virg. Med. Monthly*, was from an Irish girl, eight years old, whose sister, sixteen years old, was lying ill with pneumonia. She was the daughter of a poor widow. There were two smaller children, and by the labor of this sixteen-year-old daughter the family got bread. I told the mother my fears, which it seems the eight-year-old child overheard, and dreadful alarm filled her breast. She waited on the sister with greatest tenderness, and the smaller children were kept quiet and orderly. I promised to call again late at night. It was dark and rainy. Fears and forebodings increased with the surrounning gloom. The eight-year-old girl could not stay in the house, but, in spite of the cold, remained outdoors watching for my coming. When, peering through the darkness, she caught sight of me she exclaimed, with an emphasis and heartfelt earnestness that thrilled me through and through, and I shall never forget, "Thank God, here comes the doctor!"—a prayer of thanksgiving that went as straight to heaven as that of a sainted prophet or priest, and I felt that even my name had been mentioned and honored in the courts of heaven.

WEEKLY Report of Interments in Philadelphia, from November 7 to November 14, 1891:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess of lung	1		Fever, malarial	1	2
Aneurism of the aorta	1		" scarlet		9
Alcoholism	2		" typhoid	9	
Apoplexy	10	1	Hernia	1	
Asthma	1		Inanition	1	8
Bright's disease	15		Inflammation bladder	1	
Burns and scalds		1	" brain	2	7
Cancer	8		" bronchi	3	3
Casualties	8		" kidneys	3	2
Congestion of the brain	2	3	" liver	2	
" " lungs	1	2	" lungs	22	16
Childbirth	1		" pericardium		1
Cellulitis	1		" peritoneum	3	2
Cholera infantum		3	" s. & bowels	8	3
Cirrhosis of the liver	3		" tonsils	1	
Consumption of the lungs	44	2	Intussusception	1	
" " throat	1		Marasmus	1	10
Convulsions		13	Neuralgia of the heart	1	
Croup		17	Obstruction of the bowels	2	
Cyanosis		5	Old age	17	
Debility	1	1	Paralysis	9	2
Diabetes	1		Poisoning, chloral	1	
Diphtheria		28	Rheumatism	1	1
Disease of the heart	24	2	Septicæmia	1	
" " kidneys	1		Stricture of the œsophagus	1	
Drowned	1		Suicide	2	
Dropsy, abdominal	1		Teething		3
Dropsy of the chest	1	1	Tumor of spleen	1	
Dysentery	2		Tumor, uterine	1	
Effusion of the brain	1	1	Uræmia	3	
Embolism, cerebral	1		Whooping cough		4
Epilepsy	1				
Enlargement of the heart	4		Total	238	153
Fatty degeneration of the heart	1				

DR. ELMER E. HORN (Medico-Chi., 1889) is to marry Miss Lulu Williamson, of Salladasburg, Pa., on December 5.

WOMEN DO NOT LIKE WOMEN AS DOCTORS.—Knowledge of a certain kind has done nothing for women; the women doctors do not compare, so far as getting people well goes, with a good old nurse, or, what's better still, a mother. My experience has taught me that no woman doctor can cure a pain under the apron better than an old colored mammy, who will give you a proper dose of paregoric and put hot salt bags on the place where the pain is, and sit and smooth your hands until you go to sleep. I wouldn't let a woman doctor experiment on my fox terrier; I know what suits him, and I can give it to him myself. Women have always known you could rub away a pain; they have always known the advantages of heat for simple ailments, and when they have tried all these they then want a man to fall back on.

—"Bab," in *The Times*.

DR. G. W. VAN VLECK, graduate of the Eclectic Medical College, of Philadelphia, 1854, was arrested in Cincinnati, November 15, for "issuing bogus diplomas for money, permitting the holders to practise medicine. The institution which issued the diplomas, and of which Van Vleck is the President, has held a charter for nine years, and has existed in secret during that time. It was known as the Medical University of Ohio. It has no building, and no lectures are given.

"It is not known how many diplomas were issued in this manner, but it has been learned that burial permits have been issued by persons holding such diplomas. Van Vleck's charges for a diploma vary from $500 down to a few dollars. The reporter making the investigation obtained a diploma for a small sum. Van Vleck was released on $1,000 bail."

—*Pittsburg Dispatch.*

EXPERT engineers are working upon the drainage problem in connection with the Exposition grounds at Jackson Park. As a result of calculation in the Construction Department, a somewhat new plan will be adopted for taking care of World's Fair sewage. All the offal, conveyed through underground pipes, will run into four large tanks at the southwestern portion of Jackson Park. These tanks are to be thirty feet in diameter and forty feet deep. The novel feature connected with the plan is that the sewage deposited in the tanks is to be treated chemically, and the Construction Department believes that the water flowing from them after the chemical treatment will be almost pure and wholesome. So far as is known a similar treatment has never been adopted, except at Berlin, Germany. There the method has been found to work with satisfaction. If equally successful at Chicago the waters of the lake will not be polluted by the drainage from the Exposition grounds.

THE Polyclinic Course of Evening Lectures will be given on Tuesday and Friday evenings of each week, at 8 o'clock, in the new Polyclinic Hospital, Lombard street above Eighteenth street.

November 24.—Dr. Edward Jackson, "The Shadow Test."

November 27.—Dr. B. Alex. Randell, "Ear Diseases in General Practice."

December 1.—Dr. S. D. Risley, "The Diseases of the Choroidal Tract."

December 4.—Dr. John B. Deaver, "The Operative Treatment of Head Injuries."

December 8.—Dr. Henry Leffmann, "Recognition of Albumose and Peptone in Urine."

December 11.—Dr. Edward P. Davis, "The Use of the Forceps."

December 15.—Dr. Henry Leffmann, "Determination of Sugar and Urea in Urine."

December 18.—Dr. S. D. Risley, "The Diseases of Choroidal Tract."

December 22.—Dr. John B. Roberts, "Fractures of the Elbow."

January 5.—Dr. J. Henry C. Simes, "Syphilis."

January 8.—Dr. Lewis H. Alder, Jr., "The Physical Exploration of the Rectum."

January 12.—Dr. Arthur Van Harlingen, "The Contagious Diseases of the Skin; Their Diagnosis and Treatment."

January 15.—Dr. John B. Deaver, "The Radical cure of Hernia; Umbilical, Inguinal, and Femoral."

January 19.—Dr. J. Henry C. Simes, "Syphilis."

January 22.—Dr. H. Augustus Wilson, "The Mechanism of the Normal Foot With Reference to the Correction of Deformities."

January 26.—Dr. Arthur Van Harlingen, "The Antiseptic Treatment of Skin Diseases."

January 29.—Dr. Lewis H. Alder, Jr., "Congenital Malformation of the Rectum and Anus."

February 2.—Dr. E. P. Davis, "The Treatment of Delayed Labor."

Notes and Items.

REAL BRITISH JOKES; WARRANTED FUNNY.

"How rarely now are candidates for medical diplomas asked catch questions. Formerly, examiners were fond of asking one or two in the course of a *viva voce*, and they served a very useful purpose. As many examiners read your valuable and interesting journal, I would suggest to them the following as appropriate questions to ask, with a view to testing the wits of candidates:

"Why is 'opening' medicine prohibited in the case of accidental swallowing of pen-knife or scissors?"

"What is the most 'suitable' treatment for a case of chimney-sweep's cancer?"

'How would you proceed to treat a case of chronic vomiting, in which the patient had been obliged even to 'throw-up' his employment?"

"In contrasting the male and female organization, describe the 'vas deferens?'"

"Describe respectively cases of 'devilled kidney,' and 'hobnailed liver,' and suggest appropriate treatment."

"Judging from your own experience of treating a case of insomnia, would you suggest bringing the patient to church?" —*Hosp. Gazette.*

Notice to Advertisers.

The first number of January, 1892, will be a special issue; going to every physician in the following States and Territories:

ARIZONA	69
ARKANSAS	1800
MONTANA	160
NEBRASKA	1400
NEVADA	50
NEW MEXICO	160
WASHINGTON	500
COLORADO	800
NORTH AND SOUTH DAKOTA	600
OREGON	600
CALIFORNIA	3000
KENTUCKY	3000
IDAHO	100
MISSOURI	5000
WYOMING TERRITORY	50
UTAH TERRITORY	150
TEXAS	3700
MICHIGAN	3550
MINNESOTA	1450
KANSAS	2900
WISCONSIN	1700
INDIANA	4800
IOWA	3400
ALASKA	8
INDIAN TERRITORY	350
ILLINOIS	6500
Canada	**3800**

Advertisers desiring space in this issue will please notify us promptly; as considerable time is necessary to run so large an edition through the press.

THE MEDICAL PRESS CO., LTD.,
1725 Arch St., Philadelphia.

EUROPHEN.

EUROPHEN is the most interesting of the new Iodine compounds, for it not only acts as a perfect substitute for Iodoform, but seems likely to largely displace Mercury and Iodine in the internal treatment of Constitutional Syphilis. This at least is the opinion of Seifert, Eichhoff and Petersen, who used it hypodermically in this condition, with surprisingly good results. The same writers found also, that **EUROPHEN** possesses remarkable curative power in Obstinate Dermatoses, in Atrophic and Secretory Rhinitis, in Ulcerative Conditions, in Inflammations of the Mucous Surfaces, etc.

EUROPHEN is prepared only by the Farbenfabriken, formerly Friedr. Bayer & Co., of Elberfeld, and is supplied in ounces.

PHENACETINE-BAYER.

The safest of antithermics, and the most prompt and effective in action, **PHENACETINE-BAYER** continues to hold its high position as an Antipyretic, Analgesic, Anti-rheumatic and Anti-neuralgic. In all Acute Inflammatory Fevers, Bronchitis, Phthisis, Rheumatism, Influenza, Migraine, Whooping-cough, etc., it has given most satisfactory results.

PHENACETINE-BAYER, prepared solely by the Farbenfabriken, formerly Friedr. Bayer & Co., of Elberfeld, is supplied by us in ounces.

We prepare pills and tablets of **PHENACETINE-BAYER** containing 2, 3, 4 and 5 grains each, also pills in combination with Salol or Caffeine.

SULFONAL-BAYER.

SULFONAL-BAYER is justly regarded as a true nerve sedative, as well as a hypnotic, on account of its prolonged good effect. It is of the highest value in the Insomnia of Nervous and Febrile conditions, in the Symptomatic Treatment of Insanity, and all cases in which Hypnotics are indicated. To obtain its best effects, **SULFONAL** must be administered in a manner suited to its nature.

SULFONAL-BAYER is prepared solely by the Farbenfabriken, formerly Friedr. Bayer & Co., of Elberfeld, and is supplied by us in ounces; also in form of tablets and pills.

ARISTOL.

ARISTOL, as a succedaneum of Iodoform, has met with remarkable success. It is safe and effective in all Ulcerations, in Skin Diseases, in Lesions of the Eye, Ear, Nose, Mouth and other cavities, in Dysentery, Gonorrhœa, Ivy-poisoning, Burns, Scalds, Blisters, and all external Traumatisms. It is used in ointments, powders, crayons, suppositories, balls, oils, sprays, collodions, plasters, tampons, bandages, etc.

ARISTOL GAUZE is now widely used by American Surgeons in place of Iodoform, so long offensive to both Physician and patient.

ARISTOL, prepared only by the Farbenfabriken, formerly Friedr. Bayer & Co., of Elberfeld, is supplied by us in ounces.

New descriptive pamphlets on the above preparations mailed to applicants.

W. H. Schieffelin & Co.,

NEW YORK.